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...IE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

MARC SPITZER - Chairman
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IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, INC., AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS SUN CITY WEST WATER AND WASTEWATER DISTRICTS.	DOCKET NO. WS-01303A-02-0867
IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, INC., AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS SUN CITY WATER AND WASTEWATER DISTRICTS.	DOCKET NO. WS-01303A-02-0868
IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, INC., AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS MOHAVE WATER DISTRICT AND ITS HAVASU WATER DISTRICT.	DOCKET NO. W-01303A-02-0869
IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, INC., AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS MOHAVE WATER DISTRICT AND ITS ANTHEM WATER DISTRICT, ITS AGUA FRIA WATER DISTRICT, AND ITS ANTHEM/AGUA FRIA WASTEWATER DISTRICT.	DOCKET NO. WS-01303A-02-0870 **NOTICE OF FILING OF STAFF'S SURREBUTTAL TESTIMONY**

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, INC., AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS TUBAC WATER DISTRICT.	DOCKET NO. W-01303A-02-0908 **NOTICE OF FILING OF STAFF'S SURREBUTTAL TESTIMONY**

Staff hereby provides Notice of Filing its Surrebuttal Testimony in this Docket. An original and twenty-one copies of the Surrebuttal Testimony of Darron W. Carlson, Brian K. Bozzo, Alexander Ibhade Igwe, Dennis R. Rogers, Joel M. Reiker, Marlin Scott.

RESPECTFULLY SUBMITTED this 31st day of October 2003.

Timothy J. Sabo
Attorney, Legal Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007
(602) 542-3402

The original and twenty-one (21) copies of the foregoing were filed this 31st day of October 2003 with:

Docket Control
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

Copies of the foregoing were mailed this 31st day of October 2003 to:

Norman D. James
Jay L. Shapiro
Fennemore Craig
3003 N. Central Avenue, Suite 2600
Phoenix, AZ 85012
Attorneys for Arizona-American Water Company

Daniel Pozefsky
RUCO
1110 W. Washington, Suite 220
Phoenix, Arizona 85007

William P. Sullivan
Paul R. Michaud
Martinez & Curtis
2712 North 7^{th} Street
Phoenix, Arizona 85006
Attorney for the Town of Youngtown

Carlton G. Young
3203 W. Steinbeck Drive
Anthem, Arizona 85068-1540

Frank J. Grimmelmann
42441 N. Cross Timbers Court
Anthem, Arizona 85086

Raymond E. Dare
Sun City Taxpayers Association
12611 N. 103^{rd} Avenue, Suite D
Sun City, Arizona 85351-3467

Walter W. Meek, Pres.
AUIA
2100 N. Central Ave., Suite 210
Phoenix, Arizona 85004

John A. Buric
Warner Angle Hallam Jackson & Formanek PLC
3550 N. Central Ave., Suite 1500
Phoenix, AZ 85012
Attorneys for Fiesta RV Resort Limited Partnership

Mr. David P. Stephenson
Director of Rates and Revenues
American Water Works Service Co., Inc.
303 H Street, Suite 250
Chula Vista, California 91910

Kenneth C. Sundlof, Jr.
Robert Taylor
Jennings Strouss & Salmon PLC
The Collier Center, Floor 11
201 E. Washington Street
Phoenix, AZ 85004-2385
Attorneys for Sun Health Corporation

Viola R. Kizis
Assistant to Timothy J. Sabo

ARIZONA CORPORATION COMMISSION
UTILITIES DIVISION

SURREBUTTAL

TESTIMONY

OF

DARRON W. CARLSON
BRIAN K. BOZZO
ALEXANDER I. IGWE
DENNIS R. ROGERS
JOEL M. REIKER
MARLIN SCOTT, JR.

DOCKET NOS. WS-01303A-02-0867
WS-01303A-02-0868
W-01303A-02-0869
WS-01303A-02-0870
W-01303A-02-0908

IN THE MATTER OF THE APPLICATIONS OF ARIZONA-AMERICAN WATER COMPANY, INC., AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS SUN CITY WEST WATER AND WASTEWATER DISTRICTS, SUN CITY WATER AND WASTEWATER DISTRICTS, MOHAVE AND HAVASU WATER DISTRICTS, AGUA FRIA AND ANTHEM WATER AND WASTEWATER DISTRICTS, AND TUBAC WATER DISTRICT

OCTOBER 31, 2003

CARLSON

BEFORE THE ARIZONA CORPORATION COMMISSION

MARC SPITZER
Chairman
WILLIAM A. MUNDELL
Commissioner
JEFF HATCH-MILLER
Commissioner
MIKE GLEASON
Commissioner
KRISTIN K. MAYES
Commissioner

IN THE MATTER OF THE APPLICATIONS OF ARIZONA-AMERICAN WATER COMPANY, INC., AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS SUN CITY WEST WATER AND WASTEWATER DISTRICTS, SUN CITY WATER AND WASTEWATER DISTRICTS, MOHAVE AND HAVASU WATER DISTRICTS, AGUA FRIA AND ANTHEM WATER AND WASTEWATER DISTRICTS, AND TUBAC WATER DISTRICT	)	DOCKET NOS. WS-01303A-02-0867 WS-01303A-02-0868 W-01303A-02-0869 WS-01303A-02-0870 W-01303A-02-0908

SURREBUTTAL

TESTIMONY

OF

DARRON W. CARLSON

PUBLIC UTILITIES ANALYST V

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

OCTOBER 31, 2003

TABLE OF CONTENTS

Page

SCHEDULES

EXECUTIVE SUMMARY
ARIZONA-AMERICAN WATER COMPANY, INC.
DOCKET NOS. WS-01303A-02-0867 ET AL.

The surrebuttal testimony of Staff witness, Darron W. Carlson, addresses the following main issues in the rebuttal testimonies of the opposing witnesses:

(1) Fair Value Rate Base ("FVRB") should reflect only the reproduction cost new less depreciation rate base ("RCRB") and should ignore original cost less depreciation rate base ("OCRB");

(2) the Company requests an accounting order authorizing special treatment of the amortization methodology of the acquisition adjustment, and;

(3) the Company requests a surcharge mechanism for the Sun City Wastewater system to recover costs of plant being installed over the next five years.

Staff recommends the following:

(1) Staff has revised its FVRB determination to reflect 50 percent OCRB and 50 percent RCRB. Staff recommends the Commission adopt Staff's surrebuttal FVRB;

(2) the Commission should deny the request for the accounting order. Staff believes it is inappropriate to authorize an amortization methodology on an adjustment that this Commission has not authorized for any recovery. Staff believes that the Company cannot amortize this adjustment at all until recovery has been authorized, and;

(3) the Commission should deny the request for a surcharge mechanism. Staff believes it is inappropriate to authorize a surcharge mechanism for costs that are currently neither known and measurable nor used or useful.

INTRODUCTION

Q. Please state your name, occupation, and business address.

A. My name is Darron W. Carlson. I am a Public Utilities Analyst V employed by the Arizona Corporation Commission ("ACC" or "Commission") in the Utilities Division ("Staff"). My business address is 1200 West Washington Street, Phoenix, Arizona 85007.

Q. Are you the same Darron W. Carlson who previously filed direct testimony in this case?

A. Yes, I am.

Q. What is the purpose of your surrebuttal testimony in this proceeding?

A. The purpose of my surrebuttal testimony in this proceeding is to present Staff's response to the rebuttal testimonies filed by the Arizona Utility Investors Association ("AUIA") witness Mr. Walter Meek and Arizona-American Water Company, Inc. ("AAWC" or "Company") witnesses Mr. David Stephenson, Mr. Thomas Bourassa, Mr. Fredrick Schneider, and Dr. Thomas Zepp. In addition, I am presenting Staff's surrebuttal schedules DWC-1, DWC-2, DWC-3, and DWC-4. These surrebuttal schedules reflect Staff's revised recommended cost of capital sponsored by Staff witness Mr. Joel Reiker and certain adjustments made to Staff's recommended operating expenses, fair value rate base ("FVRB") and plant balances.

Q. What other Staff witnesses are involved in the presentation of Staff's responses to rebuttal testimonies?

A. Staff witnesses Mr. Alexander Igwe, Mr. Brian Bozzo, Mr. Dennis Rogers, and Mr. Joel Reiker are presenting Staff's responses to various aspects of the rebuttal testimonies. Additionally, Staff Engineers Mr. John Chelus, Ms. Dorothy Hains, Mr. Marlin Scott, Jr., and Mr. Lyndon Hammon are presenting a joint response to aspects of the rebuttal testimonies.

Q. How is the remainder of your surrebuttal testimony organized?

A. I will rebut each of the opposing witnesses in the same order as listed above and within each section I will rebut issues in the order used by that witness. Then I will review Staff's specific changes to plant and fair value rate base.

Q. Did Staff prepare revised surrebuttal schedules for each of the ten systems?

A. Yes. Staff prepared revised surrebuttal schedules for each of the ten systems for revenue requirement, rate base, and operating income.

Q. Does the fact that Staff does not respond to any of the Company's issues raised in its rebuttal testimony indicate Staff's agreement with the Company position?

A. No. Staff's lack of response to any issue in its surrebuttal testimony should not be construed as agreement with the Company's rebuttal testimony. Rather, Staff relies on its original direct testimony where there is no response.

AUIA WITNESS MR. WALTER MEEK

Fair Value Rate Base

Q. After review of Mr. Meek's rebuttal testimony, what is Staff's understanding of his position on FVRB?

A. Mr. Meek's position is that the Company's proposed FVRB, reflecting only reproduction cost new less depreciation ("RCND") valuations, is the correct one to use in this proceeding.

Q. Does Staff agree with Mr. Meek that the Commission should approve a FVRB reflecting only RCND valuations?

A. No, Staff does not agree. Mr. Meek argues, at page 17, that the Commission should adopt a rate base reflecting the Company's current value at market, not historic or book cost. That is not consistent with proper rate-making principles or the historical practice of this Commission. Staff believes that all valuations that are correct and pertinent should be considered in a fair value determination. In this particular case, until now, the only correct and pertinent valuation was original cost. Staff Engineering determined that the corrected RCND valuations filed in the Company's rebuttal testimonies have corrected the deficiencies cited in Staff's direct testimonies.

Based on the corrected RCND valuations, Staff recommends the normal Commission practice of weighting the FVRB to reflect 50 percent original cost rate base ("OCRB") and 50 percent reproduction cost rate base ("RCRB"). The surrebuttal schedules reflect this altered recommendation.

Acquisition Adjustment

Q. After review of Mr. Meek's rebuttal testimony, what is Staff's understanding of his position on the acquisition adjustment?

A. Mr. Meek's position is that the Company should be allowed to defer demonstration of net benefits to a future proceeding for potential recovery of any acquisition adjustment.

Q. Does Staff agree with Mr. Meek that the Commission should defer to a future rate proceeding the demonstration of net benefits from the acquisition?

A. Staff agrees the Company should have the opportunity to demonstrate net benefits to support a request for recovery of the acquisition adjustment in a future rate proceeding since no recovery should be entertained in this proceeding. However, Staff will repeat its caution from direct testimony that comparisons between its operations and those of Citizens' for the purpose of demonstrating net benefits becomes less reliable, and therefore more difficult to demonstrate, as time lapses. Staff suggests that the term "defer" should be avoided in any Commission Order in this proceeding to eliminate any potential misinterpretation that the Commission has changed the requirements established in Decision No. 63584 for recovery of the acquisition adjustment.

AAWC WITNESS MR. DAVID STEPHENSON

Fair Value Rate Base and Acquisition Adjustment

Q. Why has Staff included both FVRB and the acquisition adjustment in one sub-section?

A. Both issues are included in this one sub-section because Mr. Stephenson so entwines the two issues that Staff could not separate them. In Mr. Stephenson's rebuttal testimony both issues are included under the sub-title of acquisition adjustment.

Q. After review of Mr. Stephenson's rebuttal testimony, what is Staff's understanding of his position on the acquisition adjustment?

A. Mr. Stephenson's position appears to be that the Company is not seeking recovery of the acquisition adjustment in this proceeding.

Q. Does Staff agree with Mr. Stephenson that the Company is not seeking recovery of the acquisition adjustment?

A. No, Staff does not agree. Mr. Stephenson contends that the Company's original filing mistakenly provided for recovery of the acquisition adjustment through amortization/depreciation expenses. The Company's rebuttal position agrees with Staff's recommendation to remove amortization expense of the acquisition adjustment. However, the Company continues to include the acquisition adjustment in plant as shown on its rebuttal filings on the Schedules B-1 and B-2.

Q. Does Mr. Stephenson explain why the acquisition adjustment is included with the Company's proposed original cost rate base?

A. Yes, at page 11, he contends that the acquisition adjustment must be included for accounting purposes. Mr. Stephenson claims that it does not matter since the Company's proposed FVRB reflects only RCND valuations and excludes the acquisition adjustment.

Q. Does Staff agree that the OCRB treatment of the acquisition adjustment does not matter?

A. No, Staff does not agree. Regardless of the accounting, if the Company is not requesting recovery of the acquisition adjustment, then it should have made an adjustment to remove it from original cost rate base for rate-making purposes.

Q. Does Mr. Stephenson express any opinion about Staff's recommendation for the acquisition adjustment?

A. Yes. Mr. Stephenson asserts, at page 11, that Staff uses the Company's supposed attempt to recover the acquisition adjustment as reason to recommend an original cost (only) rate base and is merely an attempt to conceal Staff's rejection of fair value rate-making.

Q. How does Staff respond to this assertion?

A. Staff used the only valid and pertinent valuation in determining its recommended FVRB, the original cost, since Staff had rejected the Company's RCND valuations.

Now with the corrected RCND valuations supplied in the Company's rebuttal, Staff has more information to use and it now recommends a FVRB consisting of 50 percent OCRB and 50 percent RCRB.

Q. Why does Staff choose to use 50 percent OCRB and 50 percent RCRB in its FVRB?

A. This particular method is the one that this Commission has used in most, if not all, of the rate cases where there are valid OCRBs and RCRBs. The Commission has determined this method to be reasonable and appropriate.

Q. Has the Company used FVRB in prior cases before this Commission?

A. Yes, it has. The FVRB in its prior rate case (Decision No. 61831, 07/20/1999) was based on an OCRB, and AAWC waived the use of RCRB in that case. The Company's older rate cases (Decision Nos. 60220, 05/27/1997 and 59079, 05/05/1995) reflect a 50 percent OCRB and 50 percent RCRB weighted FVRB.

Deferred Income Taxes and Investment Tax Credits

Q. After review of Mr. Stephenson's rebuttal testimony, what is Staff's understanding of his position on accumulated deferred income taxes ("ADITs") and investment tax credits ("ITCs")?

A. The Company and Staff agree that ADITs and ITCs should be zero for the acquired properties as of the date of the acquisition of the Citizens properties on January 15, 2002. The Company disagrees with Staff that ratepayers were harmed by the elimination of ADITs and ITCs due to the acquisition from Citizens. Staff pointed out in direct testimony that the ratepayers of the acquired systems incurred a higher rate base due to the elimination of Citizens' balances in these accounts and this loss should be accounted for in any determination of net benefits. Mr. Stephenson, at page 12, states that the ratepayers will eventually gain back this harm through the Company's amortization of the acquisition adjustment.

Q. How does Staff respond to Mr. Stephenson?

A. Loss of ADITs increased rate base and revenue requirement to the detriment of ratepayers. This negative impact to ratepayers should not be ignored. Any future benefits the Company might demonstrate should also be recognized. Comparing the benefits to the detriments will provide the <u>net</u> benefits which the Commission has ordered the Company to demonstrate to become eligible for recovery of the acquisition adjustment.

Accounting Treatment of the Acquisition Adjustment

Q. After review of Mr. Stephenson's rebuttal testimony, what is Staff's understanding of his position on the accounting treatment of the acquisition adjustment?

A. It appears that Mr. Stephenson is requesting an accounting order authorizing the Company to amortize the acquisition adjustment over 40 years using a mortgage style rather than a straight-line basis.

Q. How does Staff respond to the Company's request for an accounting order to authorize the amortization of the acquisition adjustment over 40 years using the mortgage method?

A. The Company has apparently based its recommendation to amortize the acquisition adjustment over 40 years on Accounting Principle Board ("APB") Opinion No. 17, "Intangible Assets." APB No. 17 required intangible assets to be amortized over their useful lives, not to exceed 40 years. APB No. 17 was superseded by Financial Accounting Standards Board ("FASB") Statement No. 142. Under FASB 142 goodwill is not amortized. Instead, it is tested for impairment. However, the Company could amortize a regulatory asset (acquisition adjustment) subsequent to the Commission authorizing its recovery. If and until the Commission authorizes recovery of a portion of the acquisition adjustment, the Company has no regulatory asset to amortize.

Q. How does Staff recommend the Company amortize the acquisition adjustment?

A. The Company has no regulatory asset to amortize per FASB No. 71, "Accounting for the Effects of Certain Types of Regulation." There is no reason to authorize an amortization method on an asset that does not exist. Staff recommends that the Commission authorize an amortization methodology only in the event of, and in conjunction with, a provision authorizing recovery of a portion of the acquisition adjustment.

Miscellaneous Issues

Q. Does Staff have any other comments on Mr. Stephenson's rebuttal testimony?

A. Yes, first Mr. Stephenson testifies, at page 22, that Staff picks and chooses issues to lower the revenue requirement. Then, on the same page, he accuses Staff of being inconsistent when Staff includes a full year of post-test year plant additions that increase revenue requirement. Staff's recommendations are consistent with rate-making principles or with variances the Commission at times allows to recognize limited post-test year plant in rate base. Staff only recommends recognition of certain post-test year plant in this particular case due to the unique and extraordinary circumstances discussed in my direct testimony, at page 14, including the stale test year, the rate case moratorium, and the post-9/11 security improvements; and Commission Decision No. 61831. Absent **all** of these unique or other extraordinary circumstances recognition of post-test year plant would not be appropriate in this case because it results in a mismatch.

Additionally, Mr. Stephenson testifies, at page 22, that Staff removed the Citizens computer systems that the Company did not purchase from Citizens as not used and useful, which he agrees is proper. But, he testifies that Staff did not include an allowance for the Company's administrative costs. Staff believes that any administrative operating costs included in computer plant items will be similar to the Company's administrative operating costs already included in its computer billing system.

AAWC WITNESS MR. THOMAS BOURASSA

Fair Value Rate Base

Q. After review of Mr. Bourassa's rebuttal testimony, what is Staff's understanding of his position on FVRB?

A. Mr Bourassa's position, much like the other AAWC witnesses, is that the Company's proposed rebuttal FVRB, reflecting only RCND valuations, is the correct one to use in this proceeding.

Q. Does Staff agree with Mr. Bourassa that the Commission should approve a FVRB reflecting only RCND valuations?

A. No, Staff does not agree. Staff notes that Mr. Bourassa, at page 9, misinterprets the Commission's prior decisions in an attempt to support his position. Mr. Bourassa contends that fair value means current value. His interpretation is simply not correct. This Commission has determined, in previous cases where there were valid OCRBs and RCRBs, that the appropriate fair value would reflect 50 percent OCRB and 50 percent RCRB. To support his position, Mr. Bourassa cites previous cases before this Commission where an RCRB was accepted, but he neglected to mention that in every one of theses cases FVRB was set, at best, at 50 percent OCRB and 50 percent RCRB.

Sun City Wastewater/Tolleson Agreement Third Amendment Cost Recovery

Q. After review of Mr. Bourassa's rebuttal testimony, what is Staff's understanding of his position on cost recovery of the third amendment to the Tolleson Agreement?

A. Mr. Bourassa's position is that the Commission should authorize the Company's proposed surcharge mechanism to allow recovery of costs related to the third amendment to the Tolleson Agreement, in this proceeding.

Q. Does Staff agree with Mr. Bourassa that the Commission should authorize the Company's proposed surcharge mechanism to recover costs from the third amendment to the Tolleson Agreement in this proceeding?

A. No, Staff does not agree. Mr. Bourassa states that the costs are reasonably known and measurable. First, the Company is obligated to pay approximately $10 million before 2008 to fund capital improvements not yet completed, as the construction plan covers a five-year period. Staff believes it would be irresponsible to recommend that this Commission authorize a surcharge for recovery of costs for plant that its Engineering Staff did not inspect and approve and may not for five years or more. Further, Staff will not have reviewed all of the actually known and measurable expenses, and it may not for five or more years from now. Staff continues to believe that the Commission should only authorize recovery of plant investment after it is used and useful and the costs are known and measurable. Staff's recommendation places the Company in the same position as if it constructed and owned the new plant and replacement plant. That is, prudently incurred plant additions would be recognized in the next rate case.

Second, the contingency and reserve fund is to be funded at $20,000 per month with an aggregate of $200,000. Staff notes that this fund is reserved for unknown future plant additions and replacements and, therefore deserves the same treatment as detailed above.

That is, there should be no recovery until plant additions are completed from this fund. After which, those additions could be included with the Company's next rate case filing. This allows Staff Engineering to inspect plant additions and for Staff to verify costs of plant prior to the Commission's authorizing inclusion in rate base for recovery. Again, this puts the Company in the same position as if it owned the new or replacement plant.

Q. What is Staff's recommendation on the surcharge request to recover costs related to the Third Amendment to the Tolleson Agreement?

A. Staff recommends that the Company continue to defer these costs, as ordered in Decision No. 66386, dated October 06, 2003. Whenever plant is placed in service from either the capital improvement fund or the contingency and reserve fund, it then can be considered for inclusion in the Company's proposed rate base in its next rate filing. This method allows Staff to inspect and verify this plant the same way it does for plant that the Company actually owns.

AAWC WITNESS MR. FREDRICK SCHNEIDER

Sun City Wastewater/Tolleson Agreement Third Amendment Cost Recovery

Q. After review of Mr. Fredrick Schneider's rebuttal testimony, what is Staff's understanding of his position on cost recovery of the third amendment to the Tolleson Agreement?

A. Mr. Schneider's position is that the Commission should authorize the Company to recover the costs of the third amendment to the Tolleson Agreement in this proceeding.

Q. Does Staff agree with Mr. Schneider that the Commission should authorize the Company to recover these costs, in this proceeding?

A. No, Staff does not agree. As already explained in this surrebuttal testimony, Staff does not believe that the costs represent any used or useful plant nor are they known and measurable.

AAWC WITNESS DR. THOMAS ZEPP

Fair Value Rate Base

Q. After review of Dr. Zepp's surrebuttal testimony, what is Staff's understanding of his position on FVRB?

A. Dr. Zepp's position is that the Company's proposed FVRB, reflecting only RCND valuations, is the correct one to use in this proceeding.

Q. Does Staff agree with Dr. Zepp that the Commission should approve a FVRB reflecting only RCND valuations?

A. No, Staff does not agree. Dr. Zepp, at page 28, states that the Commission is required to use RCRB as FVRB, which is simply false as a matter of rate-making principle and historical practice. The Commission is required to consider the "value of a utility's property at the time of inquiry" assuming that a rate filing includes a valid and pertinent RCND study. Dr. Zepp believes that OCRB should be ignored in FVRB determination.

Staff is not aware of any rate case in the past, where this Commission ignored OCRB and used an RCRB-only FVRB. In Staff's surrebuttal, it revised its recommended FVRB to reflect 50 percent OCRB and 50 percent RCRB, the usual method that this Commission has used to set FVRB.

Q. Does Dr. Zepp discuss what valuation rate base should be used on which to apply the rate of return ("ROR")?

A. Yes, he does. Dr. Zepp testifies, at page 27, that the rate of return should be applied directly to FVRB (assuming it reflects only RCRB).

Q. Is Dr. Zepp presenting his opinion as an expert legal witness?

A. No. Dr. Zepp is not presenting himself as a legal expert.

RATE BASE

Post-Test Year Plant Adjustment

Q. Is Staff recommending any adjustment to post-test year plant subsequent to what was recommended in Staff direct testimony?

A. Yes. Staff assumed that all post-test year plant additions were in place and accepted by Engineering Staff as per the amounts reflected in the Company's response to Staff data request DWC 12-2. Accordingly, Staff's schedules reflect this assumption.

Q. What caused Staff to recommend further adjustment to post-test year plant additions?

A. After the filing of Staff's direct testimony, it was discovered that Staff witness Mr. Marlin Scott, Jr. did not totally accept the Company's post-test year plant additions. At page 14 of Mr. Scott's direct testimony and page 49 of Mr. Scott's engineering report for the Mohave Water system, he recommends removing $72,240 of post-test year plant additions. Mr. Scott was unable to verify this plant and Company personnel could not identify it.

Q. What is the adjustment Staff recommends?

A. Staff recommends reducing the post-test year plant additions under plant account no. 311 for the Mohave Water system, as reflected in Staff's surrebuttal schedule DWC-4. Staff's direct schedule used $127,873 for the post-test year plant additions in plant account no. 311. Staff's rebuttal schedule uses $55,633 for this entry, reflecting the $72,240 removal.

Not Used and Useful Plant Adjustment

Q. Is Staff recommending any adjustment to plant subsequent to what was recommended in Staff direct testimony?

A. Yes. Staff recommended removal of plant (designated as not used and useful) listed in the plant accounts of the Sun City Water system under plant account no. 391.10 (computer equipment); $592,003 in plant and $40,759 of associated accumulated depreciation. Staff relied upon the asset listing for these amounts and it created a credit (negative) balance in account no. 391.10 after adjustment.

Q. What caused Staff to change its adjustments to plant?

A. The Company had allocated this plant to eight of the Maricopa systems. Subsequent to the filing of Staff's direct testimony and prior to the filing of the Company's rebuttal testimony, the Company provided Staff with its allocation basis in response to Staff data request no. DWC 35-1.

Q. What is the adjustment that Staff recommends?

A. Staff recommends replacing the original plant and accumulated depreciation adjustments with an adjustment that reflects the following table:

TABLE I

System	Decreases to Computer Plant	Decreases to Accumulated Depreciation
Sun City West Water	$99,055	$6,820
Sun City West Wastewater	94,656	6,517
Sun City Water	141,104	9,715
Sun City Wastewater	134,421	9,255
Mohave Water	-0-	-0-
Havasu Water	-0-	-0-
Agua Fria Water	82,674	5,692
Anthem Water	20,781	1,430
Anthem/Agua Fria Wastewater	16,174	1,114
Tubac Water	3,138	216
TOTALS:	$592,003	$40,759

The corrected adjustments are reflected in Staff's surrebuttal schedule DWC-4.

Q. Did the Company address this allocation issue in its rebuttal testimony?

A. AAWC witness, Mr. Bourassa, at page 4 mentions it and refers to his rebuttal schedule B-2, pages 2a and 3a.

Q. Did the Company's allocations agree with Staff's allocations?

A. No. Specifically to the computer adjustment, the Company's allocation of plant is more than $600,000 and its allocation of accumulated depreciation is less than $30,000 so that the Company's allocation does not equal the original adjustment as reflected in Table I.

Q. What does Staff recommend?

A. Staff recommends that its version of the allocation (using the Company's allocation basis) be adopted as it is correct and matches the original amount that the Staff Engineer found not used and useful and reflected in Staff's original adjustment.

Q. How do these adjustments affect the OCRB?

A. For the ten systems, Staff recommended an OCRB, in the aggregate, of $91,719,544 in its direct testimony. As per Staff surrebuttal schedule DWC-3, Staff now recommends an OCRB, in the aggregate, of $91,647,303.

Q. Is Staff recommending any other adjustments to the rate base?

A. Yes. As explained earlier in this surrebuttal testimony, Staff now recommends a FVRB using 50 percent OCRB and 50 percent RCRB. Originally, Staff had only the OCRB valuation to use as the Company's RCND valuations were not valid. The Company corrected the RCRB in its rebuttal testimony, so now Staff can use both valuations in its recommended FVRB.

Q. Staff's rate base schedules only reflect OCRB. Where are Staff's RCND rate base schedules?

A. Staff could not produce its own RCND rate base because it could not correlate its adjustments to the RCND.

Q. How did Staff arrive at its recommended RCRBs for the ten systems?

A. Staff used the Company's rebuttal schedules, specifically rebuttal schedule B-1. First Staff adjusted the Company's OCRB by removing the acquisition adjustment. Then Staff divided that corrected OCRB into the Company's RCRB. Then Staff multiplied that resulting figure by Staff's surrebuttal OCRB from surrebuttal schedule DWC-3. The following calculations for the Sun City West Water system are presented as an example:

Company OCRB	\$20,165,548
Less the acquisition adjustment	(8,101,902)
Total	12,063,646
Company RCRB	15,432,917

15,432,917 / 12,063,646 = 1.27929126899

Staff OCRB 11,971,281 X 1.27929126899 =

Staff RCRB \$15,314,755

The Staff recommended RCRB has the same ratio to Staff recommended OCRB as the Company's proposed RCRB has to the Company's proposed OCRB (less the acquisition adjustment).

Q. What is Staff's recommendation for rate base?

A. Staff recommends that the FVRB be determined by using 50 percent of Staff's OCRB and 50 percent of Staff's RCRB. In the aggregate, Staff's OCRB is \$91,647,303 and Staff's RCRB is \$135,490,259, resulting in a Staff recommended FVRB of \$113,569,782 for all ten systems.

REVENUE REQUIREMENT

Rate of Return

Q. Is Staff recommending any adjustment to the rate of return in its surrebuttal testimony?

A. Yes, Staff witness, Mr. Joel Reiker has recommended an updated rate of return and his recommendation is reflected in Staff surrebuttal schedules JMR-S8 and DWC-1.

Income Statement

Q. Is Staff recommending any adjustments to the income statement in its surrebuttal testimony?

A. Yes. Staff has altered all of the ten systems' income statements. The adjustments include adjustments to purchased water for Agua Fria and Anthem water systems sponsored by Staff witness Mr. Alexander Igwe, adjustments to the rate of return (which affects revenue) and the weighted cost of debt (which affects synchronized interest and thus income taxes) sponsored by Mr. Reiker, and, my adjustments to plant (which affect depreciation). These adjustments alter the recommended revenue requirement, the purchased water expense level, the depreciation expense, the property taxes, and the income taxes at various levels in each of the ten systems. Please refer to the individual Staff surrebuttal schedules AII-1 and AII-2 for the specific effects to each system.

Q. What is Staff's recommendation for revenue requirement?

A. Staff recommends that the Commission adopt Staff's surrebuttal level of revenue requirement, as reflected on Staff's surrebuttal schedule DWC-1 for each system. In the aggregate, Staff's surrebuttal revenue increase totals $346,647 for a 0.98 percent increase over current rates. The aggregate effect on the ten systems is to reduce Staff's recommended revenue increase by $130,075 from $476,722 to $346,647.

Q. Does this conclude your surrebuttal testimony?

A. Yes, it does.

BOZZO

BEFORE THE ARIZONA CORPORATION COMMISSION

MARC SPITZER
Chairman
WILLIAM A. MUNDELL
Commissioner
JEFF HATCH-MILLER
Commissioner
MIKE GLEASON
Commissioner
KRISTIN K. MAYES
Commissioner

IN THE MATTER OF THE APPLICATIONS OF ARIZONA-AMERICAN WATER COMPANY, INC., AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS SUN CITY WEST WATER AND WASTEWATER DISTRICTS, SUN CITY WATER AND WASTEWATER DISTRICTS, MOHAVE AND HAVASU WATER DISTRICTS, AGUA FRIA AND ANTHEM WATER AND WASTEWATER DISTRICTS, AND TUBAC WATER DISTRICT	DOCKET NOS. WS-01303A-02-0867 WS-01303A-02-0868 W-01303A-02-0869 WS-01303A-02-0870 W-01303A-02-0908

SURREBUTTAL

TESTIMONY

OF

BRIAN K. BOZZO

ADMINISTRATIVE SERVICES OFFICER II

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

OCTOBER 31, 2003

TABLE OF CONTENTS

EXECUTIVE SUMMARY
ARIZONA-AMERICAN WATER COMPANY, INC.
DOCKET NOS. WS-01303A-02-0867 ET AL.

Arizona-American Water Company, Inc ("AAWC" or "Company") filed rebuttal testimony on October 10, 2003 addressing rate case positions outlined in Staff's direct testimony of September 5, 2003. My direct testimony in this case recommended various adjustments to Test Year plant. As shown in Table 1 of my direct testimony, Staff recommended Test Year plant reductions in four different categories: Not Used and Useful plant, Unidentified Plant, Accounting Error - Mis-Classified Plant and Plant Removed per Prior Decision.

As part of the plant reductions in the categories shown above, Staff made corresponding adjustments reducing Accumulated Depreciation. AAWC disagreed with the level of Staff's individual, corresponding reductions to Accumulated Depreciation in two of the categories, not used and useful and the unidentified plant, calling for them to be treated as retirements. My surrebuttal testimony therefore is concerned with those particular Accumulated Depreciation adjustments.

AAWC did not support the treatment of the items as retirements. Staff removed the depreciation accumulated through the Test Year for those plant reduction amounts. The Company disagrees, seeking retirement treatment which would remove the entire original cost of the plant assets from the Accumulated Depreciation account.

In addition to not providing support for the retirement treatment, the Company rebuttal position contradicts its original filing in which it classified the same items as plant in service. Further, its position ignores the fact that the not used and useful plant could be held for future use and returned to plant in service. Nor does it recognize that there was no clarity about the nature of the unidentified plant.

The Company's proposal for Accumulated Depreciation rewards it for deficiencies in its records by increasing rate base to recognize not used and useful plant and plant that may have never existed. This treatment is inconsistent with the purpose of a disallowance.

INTRODUCTION

Q. Please state your name and business address.

A. My name is Brian K. Bozzo, my business address is 1200 West Washington Street, Phoenix, Arizona 85007.

Q. By whom are you employed and in what capacity?

A. I am employed in the Utilities Division of the Arizona Corporation Commission ("ACC" "Commission") as an Administrative Services Officer II.

Q. Are you the same Brian K. Bozzo who filed direct testimony in this case?

A. Yes, I am.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony is to present Staff's response to the portion of Arizona-American Water Company, Inc.'s ("AAWC" or "Company") rate case rebuttal testimony dealing with adjustments to Accumulated Depreciation. AAWC's rebuttal position relating to my direct testimony was presented by Mr. Thomas Bourassa on pages 4-6 of his rebuttal testimony. This portion of his rebuttal testimony commented on Staff's direct testimony adjustments to both plant and accumulated depreciation. Generally, the Company agrees with Staff's plant reductions but disagrees with the levels of Staff's corresponding reductions to Accumulated Depreciation.

Q. Has Staff modified its position on reductions to Accumulated Depreciation based on the Company's rebuttal testimony?

A. No.

Q. How is your testimony organized?

A. This introduction is followed by a short summary of both Staff's adjustments to Test Year plant and the Company's rebuttal position to those plant adjustments. I then break down the Company's rebuttal position on Staff's Accumulated Depreciation adjustments and provide Staff comment.

Q. Does a lack of response in this testimony to any of the Company's rebuttal positions indicate agreement by Staff on that issue?

A. No.

SUMMARY OF STAFF'S ADJUSTMENTS TO TEST YEAR PLANT

Q. Please provide a brief summary of the Staff adjustments to Test Year plant that were presented in your direct testimony.

A. My direct testimony presented various adjustments to test year plant. Those adjustments were shown on Schedule DWC-4 for each system as rate base adjustment nos. 1 through 4 (Staff witness Mr. Darron Calrson discussed rate base adjustments nos. five through seven in his direct testimony.) Staff recommended test year plant reductions in four categories, as shown in Table 1 of my direct testimony.

SUMMARY OF THE COMPANY'S REBUTTAL TESTIMONY

Q. Please summarize Mr. Bourassa's rebuttal testimony relating to your direct testimony.

A. Mr. Bourassa addressed test year plant issues on pages 4 through 6 in his rebuttal testimony. Generally, his testimony stated that AAWC agreed with the Staff reductions to plant in service. However, AAWC disagreed with the level of Staff's individual, corresponding reductions to Accumulated Depreciation for those plant items.

Q. Which plant item(s) is the Company referring to when it states that it disagrees with Staff's Accumulated Depreciation treatment?

A. The Company is referring to Staff's "not used and useful" and "unidentified" plant reductions as stated on page 5, line 13 of Mr. Bourassa's rebuttal testimony. These reductions are identified as adjustment 1 and adjustment 2 on schedule DWC-4 in both Staff's direct and surrebuttal testimonies.

Q. Does the Company discuss Staff's adjustments to Accumulated Depreciation?

A. Yes, this discussion is found on page 5, line 14 – 15 of Mr. Bourassa's rebuttal testimony. He states that Staff removed the Accumulated Depreciation through December 31, 2001, for those plant reductions related to "not used and useful" and "unidentified" plant reductions.

Q. Did the Company's description accurately illustrate Staff's Accumulated Depreciation adjustments?

A. Yes, page 5, line 14-15 of the rebuttal testimony outlines Staff's treatment of Accumulated Depreciation. Staff removed the amount of Accumulated Depreciation through the end of the Test Year for all plant reductions categorized as either "not used and useful" or "unidentified." This should correspond to the amount of Accumulated Depreciation that the Company had actually accrued at that time.

Q. Does Mr. Bourassa state why the Company disagrees with Staff's Accumulated Depreciation reductions?

A. The Company's position is that the "not used and useful" and "unidentified" plant should be considered and treated as retirements.

Q. Outline AAWC's rebuttal position on the "not used and useful" and "unidentified" plant.

A. Page 5 of Mr. Bourassa's rebuttal testimony states the following in lines 16 through 26:

> 1 Not Used and Useful plant should be retired. An Accumulated Depreciation amount equal to the full cost of the plant should be removed for retired plant.
>
> 2 Unidentified plant that is being removed *and* was given rate base treatment in prior rate cases should be treated as if retired. As above, an amount equal to the full cost of the plant should be removed from Accumulated Depreciation.
>
> 3 Unidentified plant that is being removed and was *not* given rate base treatment in prior rate cases should be considered an abandonment. This type of plant should have Accumulated Depreciation through December 31, 2001 removed.

STAFF COMMENT ON COMPANY ACCUMULATED DEPRECIATION REBUTTAL

Q. Does the Company's testimony on page 5, lines 16 through 26 provide a rationale for the statements shown above?

A. No, it does not.

Q. Does the Company's testimony identify and separate the "unidentified" plant items that were or were not granted rate base treatment previously, in order to determine this separate treatment they propose ... or indicate why this distinction would call for different treatment?

A. No.

Q. Does the Company's rebuttal position on these plant items agree with its original position from the rate application?

A. No. In the application, the Company included the "not used and useful" and "unidentified" plant items in its plant in service. This treatment identifies the plant as legitimate plant that was providing service to customers rather than as retired plant.

Q. If these items actually were retirements, could the Company or its predecessor have recorded these items as retired prior to this rate case?

A. Yes. But it did not account for them as such. If they were retirements, the Company should have accounted for them as such prior to this rate case.

Q. If these items were retirements, could the Company have removed these items from the instant rate case?

A. Yes. For instance, if these were retirements that were somehow missed by various accounting personnel over the years, then the Company could have used pro forma adjustments to remove the plant from the pending rate case.

Q. What did the Company choose to do regarding this plant?

A. The Company chose neither to retire the plant nor to pro forma remove it from this case. Rather, it chose to leave the items in plant in service and therefore rate base. The Company's own actions indicate that these plant items should *not* be treated as retirements for rate base/accounting purposes.

Q. Why is the Company's choice important?

A. The Company's choice indicates that it treated the items as plant in service. Such treatment works against its current argument that they are retirements.

Q. Who has the responsibility to track and account for plant items so they can be properly classified and identified for rate case analysis?

A. The Company has the responsibility to account for plant items. Without good information, it is difficult to demonstrate that assets included in plant in service are legitimate for inclusion in the rate base. It has not demonstrated the necessary information to show that the "not used and useful" and "unidentified" plant amounts are retirements. The Company would like to assume they are retirements.

Q. Are "not used and useful" items retirements?

A. No. They are simply items that are not currently used or useful in providing service. Items that are not currently used could be classified as plant held for future use. Such items would then be held for an unspecified time until they could later be returned to plant in service. It would not be logical to fully depreciate an item that could later return to plant in service and serve customers.

Q. Are "unidentified" plant items retirements?

A. No. Unidentified plant items are items that the Company was unable to identify. Clearly the natures of these items are at question. Staff did not know if they were retirements as the Company could not identify them and Staff Engineering could not inspect them. In fact, there is really no certainty that these items exist. Clearly, absent adequate information, Staff could not classify them as retired for calculating the Accumulated Depreciation reductions which offset the plant reductions.

Q. What did Staff do regarding "not used and useful" and "unidentified plant"?

A. Staff took a conservative, logical approach rather than treating the items as retirements and removing the full original cost from Accumulated Depreciation.

Q. Given the questions surrounding these "not used and useful" and "unidentified" plant items, was Staff's decision improper as asserted by the Company?

A. No. The only reason to remove the full original cost of such an item from Accumulated Depreciation is if it was a retirement. The Company did not demonstrate that the items were retirements.

The "not used and useful" plant could be useful at a future date and there was no clarity about the nature of the "unidentified plant." Staff did not feel justified treating these plant items as retirements. Staff therefore removed only the amount of Depreciation that would have accumulated through the end of the Test Year. This is the logical and appropriate treatment for situations where the dispensation or nature of an asset is not certain.

Q. How does the rate base treatment of these plant reductions as proposed by the Company differ from Staff's treatment in calculating Accumulated Depreciation?

A. The Company's proposed treatment would remove an equal amount of dollars from both plant and Accumulated Depreciation. If equal amounts are removed from both areas, the net result would be no impact to the rate base. However, if a lesser amount of Accumulated Depreciation were removed than the entire original cost of the asset, as Staff did, the net result would be a reduction to the rate base.

Q. Should the Company receive the treatment it proposes for "not used and useful" and "unidentified" plant?

A. No. For the reasons stated previously in this testimony, Staff does not believe that information surrounding the plant items supports the Company's contention that those plant items were retirements. Retirement is the only way the full, original cost of the asset should be removed from Accumulated Depreciation.

Q. Do you have any additional comments regarding the treatment of these plant amounts?

A. Yes. The Company proposes an Accumulated Depreciation "treatment" which is beneficial to it, even though it did not justify those plant amounts for inclusion in the rate base. When the original application was filed, it was a benefit to the Company for these items to be classified as plant in service. Now that the items are being excluded from rate base, it is beneficial for the Company to claim the same items are retirements.

Q. What is the net result?

A. The treatment it proposes would provide the Company a benefit on plant that was found to be inappropriately included in its proposed rate base. This is inconsistent with the purpose of a disallowance. The Company should not reap a benefit due to its improper recordkeeping.

Q. Does this conclude your surrebuttal testimony regarding accumulated depreciation adjustments?

A. Yes, it does.

IGWE

BEFORE THE ARIZONA CORPORATION COMMISSION

MARC SPITZER
Chairman
WILLIAM A. MUNDELL
Commissioner
JEFF HATCH-MILLER
Commissioner
MIKE GLEASON
Commissioner
KRISTIN K. MAYES
Commissioner

IN THE MATTER OF THE APPLICATIONS OF ARIZONA-AMERICAN WATER COMPANY, INC., AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS SUN CITY WEST WATER AND WASTEWATER DISTRICTS, SUN CITY WATER AND WASTEWATER DISTRICTS, MOHAVE AND HAVASU WATER DISTRICTS, AGUA FRIA AND ANTHEM WATER AND WASTEWATER DISTRICTS, AND TUBAC WATER DISTRICT	DOCKET NOS. WS-01303A-02-0867 WS-01303A-02-0868 W-01303A-02-0869 WS-01303A-02-0870 W-01303A-02-0908

SURREBUTTAL

TESTIMONY

OF

ALEXANDER IBHDAE IGWE, CPA

PUBLIC UTILITIES ANALYST IV

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

OCTOBER 31, 2003

TABLE OF CONTENTS

SCHEDULES

EXECUTIVE SUMMARY
OF THE SURREBUTTAL TESTIMONY OF
ARIZONA-AMERICAN WATER COMPANY
DOCKET NOS. WS-01303A-02-0867 et al

On October 10, 2003, Arizona-American Water Company ("AAWC" or "Company") filed its rebuttal testimony in response to Staff's direct testimony. Mr. Igwe responds to the Company's criticisms of his direct testimony. The Company is contesting Staff's recommendations on the following pertinent issues:

> The Company objects to Staff's recommendation to use Citizens recorded test year overhead expenses for determination of revenue requirement in this proceeding. AAWC argues that Citizens' recorded test year overhead expenses are extraordinary and irregular because Citizens' test year overhead expenses are significantly less than its 1999 and 2000 costs. Also, the Company contends that its 2002 overhead expenses and Service Company charges are more representative of the costs necessary to operate the ten systems under its management.
>
> Staff disagrees with the Company's contention that Citizens' recorded test year overhead expenses are extraordinary and irregular. The Company did not conclusively demonstrate why Citizens' 1999 and 2000 overhead expenses are more representative of a normal level of overhead expenses. It is speculative to assume that Citizens' 1999 and 2000 overhead expenses are more representative simply because they are higher in amount than test year costs. Worse still, AAWC's proposal to use its 2002 overhead expenses for calculating revenue requirement is inconsistent with sound rate-making principles because it creates a mismatch between test year revenues, expenses and rate base. In addition, the Company's proposal increases overhead expenses without any known benefit to ratepayers.
>
> Similarly, AAWC contends that Staff's recommendation to use Citizens' recorded test year salaries, wages and related expenses should be rejected because Citizens' test year costs are extraordinary and irregular. The Company did not demonstrate why Citizens' 1999 and 2000 salaries, wages and related expenses are more representative than test year costs. Staff disagrees with the Company's claim that its 2002 salaries, wages and related expenses are more representative of a normal level of operation than Citizens' recorded test year costs. The Company failed to demonstrate through its responses to several of Staff's data requests that there is any significant change to Citizens' test year salaries, wages and related expenses since it acquired the ten systems. The Company's proposal should be rejected absent of any evidence that there exists a significant change to Citizens' test year costs. AAWC's proposal creates a mismatch between test year revenues, expenses and rate base.

Staff accepts the Company's recalculation of Anthem Water Company's purchased water expenses based on a normalized quantity of 2001 water ordered and 2002 cost per acre-foot. Staff also accepts the Company's proposed water purchased expense for the Agua Fria Water Division.

INTRODUCTION

Q. Please state your name and business address.

A. My name is Alexander Ibhade Igwe. My business address is 1200 West Washington Street, Phoenix, Arizona 85007.

Q. Mr. Igwe, did you file Staff's direct testimony on test year operating income in this case?

A. Yes. I filed direct testimony and supporting schedules on behalf of the Utilities Division Staff ("Staff") on September 5, 2003.

Q. What is the purpose of your surrebuttal testimony in this proceeding?

A. My surrebuttal testimony addresses the operating income issues raised by Arizona-American Water Company, Inc. ("AAWC" or "Company") in its rebuttal testimony filed on October 10, 2003.

Q. Is Staff revising its direct testimony position for any operating income issues?

A. Yes. Staff accepts the Company's recalculation of Anthem Water Company's purchased water expense based on 2001 normalized quantity of water ordered and 2002 cost per acre-foot. In addition, Staff accepts the Company's proposed purchased water expense for the Agua Fria Water Division. These changes are discussed in the relevant sections of Staff's surrebuttal testimony.

Q. Did Staff make any other revisions to test year operating incomes?

A. Yes. Staff made adjustments to depreciation, property taxes and income tax expenses to conform to its surrebuttal positions on Pumping Equipment and Computer Equipment as described in the surrebuttal testimony of Staff witness Mr. Darron Carlson.

SUMMARY OF THE COMPANY'S REBUTTAL TESTIMONY

Q. What contested operating income issues are addressed by Staff's surrebuttal testimony?

A. Staff addresses the following contested issues in its surrebuttal testimony.

1. Corporate Cost Allocation
2. Salaries, Wages and Related Expenses
3. Purchased Water Expense

OPERATING INCOME

Corporate Cost Allocation

Q. Please comment on the Company's continued argument for recognition of American Water Work's ("AWW") overheads and Service Company Charges in this proceeding.

A. AAWC has modified its original request to substitute its projected overhead expenses and Service Company charges for Citizens' recorded test year costs. In its rebuttal testimony, the Company seeks to recover AWW's 2002 normalized actual amount of overheads and Service Company charges. AAWC claims that Citizens' recorded test year overhead expenses are inappropriate for the following reasons:

> "First, these Citizens' expenses bear no relation to the administrative and general management expenses that the Company will incur during the time new rates will be in effect. Second, as explained by Mr. Bourassa, the amounts recorded by Citizens during the test year are extraordinary and irregular." See rebuttal testimony of Stephenson at p-17, #16-19.

Q. Why does AAWC claim in its rebuttal testimony that Citizens' recorded test year overhead expenses are extraordinary and irregular?

A. AAWC contends that because Citizens' 1999 and 2000 overhead expenses were significantly higher than Citizens' recorded test year overhead expenses, Citizens' recorded test year overhead expenses are not representative of a normal level of expenses. The Company claims that the "…large disparity in Citizens charges in 2001 is clearly due to the pending sale of the water and wastewater. Citizens was winding down its operations and eliminated various personnel and expenses as it transitioned toward a telecommunications utility." See Stephenson's rebuttal testimony at p-18, #5-8.

Q. Did the Company provide any evidence to support its claim that Citizens recorded test year overheads are extraordinary and irregular?

A. No. The Company seems to suggest that because Citizens overhead expenses were higher in 1999 and 2000 than Citizens' recorded test year costs, Citizens recorded test year overhead expenses are irregular and extraordinary. In addition, the Company claims that the large disparity between Citizens' 1999 and 2000 overhead expenses relative to Citizens' recorded test year overhead expenses is due to Citizens winding down its operations in anticipation of sale of its water and wastewater systems.

Q. Does Staff agree with the Company's assertion that Citizens' recorded test year overheads are extraordinary and irregular?

A. No. Staff disagrees with AAWC's assertion that Citizens' recorded test year overheads are extraordinary and irregular. The Company has not provided any evidence to support its claim that Citizens' 1999 and 2000 overhead expenses are more representative of a normal level of overheads than Citizens' recorded test year overhead expenses. It is speculative to assume that 1999 and 2000 overhead expenses are more representative of a normal level of operation simply because those costs are higher than Citizens' recorded test year overhead expenses. The Company has not met its burden of demonstrating why it believes that Citizens' recorded test year overhead expenses are extraordinary and irregular. On the other hand, Staff did not review or audit Citizens' 1999 and 2000 overhead expenses and cannot determine whether Citizens' 1999 and 2000 overhead expenses are normal.

Q. Is it consistent with sound rate-making principles to assume that test year levels of expenses are representative of a utility company's normal level of expenses, on a going forward basis?

A. Yes. In the absence of contrary evidence, the test year is assumed to be representative of on-going operations. However, pro forma adjustments are allowed for known and measurable changes to test year results and balances in order to obtain a normal or more realistic relationship between revenues, expenses and rate base. Pro forma adjustments that create a mismatch between test year revenues, expenses and rate base are not considered known and measurable and are normally inappropriate. Further, adjustments that increase the revenue requirement due to change in ownership with no corresponding benefit to ratepayers are also inappropriate.

Q. Does AAWC agree that test year level of expenses are representative of normal operations and that test year revenues should be matched with test year expenses?

A. Yes. AAWC witness Mr. Stephenson states at p-19, #5-7 of his rebuttal that "… the operation and maintenance ("O&M") charged directly to each of Arizona-American districts will not materially change. Thus, the O&M expenses actually recorded in 2001, the test year, for the most part, known and measurable expenses, should be matched with 2001 revenues."

Q. Please comment on the above assertion.

A. The Company seems to suggest that the O&M expenses are representative of a normal level of expenses for the ten systems and that test year recorded O&M expenses should be matched with 2001 revenues. This assertion is consistent with sound rate-making principles which assume that test year level of expenses are representative of a normal level of expenses except for known and measurable changes.

Q. Is Staff's recommendation to disallow AAWC's proposal to substitute its projected or 2002 overhead expenses and Service Company charges for Citizens' recorded test year overhead expenses consistent with the Company's assertion that test year expenses are representative of a normal level of expenses?

A. Yes. Contrary to the Company's argument against using Citizens recorded test year overheads for determining revenue requirement in this proceeding, Staff has no reason to believe that Citizens' test year overhead expenses are not representative of normal levels of expenses. Citizens demonstrated during the test year that its recorded test year overhead expenses are adequate to provide water utility service to the customers within the ten systems.

Q. Please comment on the Company's claim that proper ratemaking calls for adjustments for known and measurable occurrences?

A. In ratemaking, pro forma adjustments are made for known and measurable changes to test year results and balances to reflect a normal and more realistic relationship between test year revenues, expenses and rate base. On the contrary, rate-making principles do not call for adjustments that create a mismatch between test year revenues, expenses and rate base and/or that increase costs due to change in ownership with no benefit to ratepayers.

Q. Does the Company proposal to substitute its 2002 normalized actual overheads and Service Company charges for Citizens' recorded test year overhead expenses constitute a known and measurable change to test year results.

A. No. Recognition of AAWC's 2002 normalized actual overhead expenses does not qualify as a pro forma adjustment because it is inconsistent with a historical test year and creates a mismatch between test year revenues, expenses and rate base. For example, the Company's proposed adjustment matches the costs incurred to provide service to the 2002 level of customers and sales with revenues for 2001. It also unduly increases overhead expenses by approximately $4,079,823 without any known benefit to ratepayers.

Q. How does Staff respond to the Company's claim that Staff conveniently ignores the concept of matching test year revenues, expenses and rate base first by recognizing pro forma plant additions in 2002 and second by recognizing Del Webb's payment in lieu of revenue that will not begin in 2004?

A. Mr. Carlson addresses this first point in his surrebuttal testimony at p-8.

Second, Staff accepted AAWC's pro forma adjustment to recognize Del Webbs' payment in lieu of revenue ("PILOR") because doing so is consistent with sound ratemaking and does not create a mismatch as the Company is now asserting. The payment in lieu of revenue was proposed by the Company and accepted by Staff after review of the related agreement between Del Webb Corporation and Anthem Water/Wastewater. The agreement specifies a schedule for the PILOR amounts over time. The PILOR amounts are known and should be recognized just as the Anthem and Agua Fria purchased water fees are known and recognized in pro forma adjustments to purchased water expense.

Q. Please comment on the assertion by the Company's witness Mr. Bourassa's rebuttal testimony p25, #4-6, that "...the 2002 actual overhead expenses some $2,512,000 less than Citizens' historical average expense. Again, this represents a significant cost savings to ratepayers."

A. The historical average expense referenced in the above assertion refers to an average calculated based on Citizens' 1999 and 2000 overhead expenses. As previously explained, Citizens' 1999 and 200 overhead expenses have not been examined. It is not known whether these amounts are an accurate representation of on-going operations in the provision of utility service.

There is no evidence that Citizens failed to provide adequate water service to its ratepayers during the test year. AAWC has not demonstrated that Citizens' quality of service during the test year was inadequate or that there is a significant change in the level of service rendered since it acquired the ten systems. The best available information on the overhead cost to provide efficient service is Citizens' recorded test year amounts. Contrary to Mr. Bourassa's assertion, AAWC's 2002 overhead expenses will result in a significant increase in cost of service without any known benefit to ratepayers.

Salaries, Wages and Other Related Expenses

Q. Please comment on AAWC's proposal to substitute its normalized actual 2002 salaries, wages and related expenses for Citizens' recorded test year costs.

A. Staff disagrees with AAWC's proposal to use its actual 2002 salaries, wages and related expenses in this proceeding. AAWC's actual 2002 salaries, wages and related expenses pertain to 2002 operations. The use of 2002 salaries, wages and related expenses should be rejected because it creates a mismatch between test year revenues, expenses and rate base. Specifically, it matches 2001 revenues with 2002 expenses.

Q. Please comment on the statement by Mr. Stephenson p21, #13-15 that "...In April 2002, all of Arizona-American's employees were granted their annual salary adjustment, a fact ignored by Staff."

A. The Company is wrong in its assertion that Staff ignored known and measurable changes to test year salaries, wages and related expenses. AAWC did not provide any evidence to support its claim that Staff ignored any significant salary adjustment in this proceeding. In Staff data requests AII-6-9, AII 11-1 and AII 34-4 (attached), Staff specifically requested the Company to demonstrate any known and measurable change to its salaries, wages and related expenses before or after change of ownership. In AAWC's response to AII 11-1, the Company indicates an increase of only $35,152, relating to increases granted to Messrs Jones, Kuta and Biesemeyer (Mr. Kuta is no longer in the employment of AAWC). In AAWC's response to Staff data request AII-21-7, the Company states that it capitalizes between 15 – 20 percent of Messrs Jones, Kuta and Biesemeyer's salaries, wages and related expenses. As discussed in Staff's direct testimony, no adjustment was made for the above increase in salaries, wages and related expenses because the impact is not significant when allocated to ten systems.

Q. How do you respond to Mr. Stephenson's assertion in his rebuttal testimony that Staff picked and chose expenses that result in the lowest possible revenue requirement?

A. Mr. Stephenson's assertion is incorrect. For example, Staff recommended rejection of AAWC's proposal to substitute its projected salaries, wages and related expenses for Citizens' recorded costs. Staff's position increases revenue requirement by more than $500,000. Also, Staff has recommended acceptance of the Company's 2002 pro forma plant additions resulting in increases to rate base, depreciation expense and revenue requirement.

Q. Please summarize the reasons for Staff's objection to the use of AAWC's 2002 salaries, wages and related expenses for calculation of revenue requirement.

A. AAWC has not demonstrated any significant known change to Citizens' recorded test year salaries, wages and related expenses. The use of AAWC's 2002 salaries, wages and related expenses is inconsistent with sound rate-making principles. It creates a mismatch between test year operating expenses, revenues and rate base.

Purchased Water Expense

Q. Please comment on AAWC's recalculation of Anthem Water Company's purchased water expense based on annualized 2001 gallons ordered and 2002 cost per acre-foot.

A. Staff accepts AAWC's recalculation of Anthem Water Company's purchased water expense based on annualized 2001 gallons ordered and 2002 cost per acre-foot.

Q. Please comment on Mr. Bourassa's argument for adopting the AAWC's proposed purchased water expense for the Agua Fria Water Division.

A. The Company's witness Mr. Bourassa contends that Agua Fria's water is purchased pursuant to a CAP water use implementation plan that is not affected by the number of customers. In addition, Staff agrees that the Company's purchased water expense is dependent upon the quantities ordered consistent with a set schedule that was approved by the Commission in Decision No. 63334. Accordingly, Staff accepts the Company's proposed purchased water expense and withdraws its recommended operating income adjustment No. 9 in its direct testimony for the Agua Fria Water Division.

Q. Does this conclude your surrebuttal testimony?

A. Yes, it does.

ARIZONA-AMERICAN WATER COMPANY
2003 GENERAL RATE CASE
DOCKET NOS. WS-01303A-02-0867, 0868, 0869, 0870, and 0908
RESPONSE TO DATA REQUEST NO. DWC 6-9

Response provided by: Robert J. Kuta

Title: Manager

Company Name: Arizona-American Water Company
Address: 19820 N. 7th Street
Suite 201
Phoenix, Arizona 85024

Company Response Number: 6-9

Q. For each system, please identify by function, wage rates and/or salaries, total compensation, and date filled, any new positions created by the Company's acquisition of the Citizens systems. Also identify by function, wage rates and/or salaries, total compensation (paid in the Test Year), and date eliminated, any positions eliminated by the Company's acquisition of the Citizens systems.

A. As indicated in my testimony, in the two plus years between the time the acquisition agreement was signed the acquisition closed, fifteen (15) full time positions were eliminated as a result of the acquisition. The attached spreadsheet details the positions and provides the requested salary and compensation data.

Of the positions created since the acquisition agreement was signed, four (4) were the result of the acquisition. Of these, one (1) has been eliminated and was never filled and one (1) is currently staffed by a temporary agency employee pending filling with a Company employee. The attached spreadsheet details the positions and provides the requested salary and compensation data for the filled positions.

Arizona-American Water Company
Attachment to Data Request Response 6-9
3/6/03

Positions Eliminated by Acquisition

Name	Location	Job Title	Final Salary	Gross Pay 2001	Termination Date
Judy Kane	Maricopa	Accountant	$40,280	$0	11/12/99
Kevin Gray	Maricopa	Billing Analyst	$43,600	$0	4/14/00
Jean Giesen	Maricopa	IT Service Rep	$53,729	$0	7/10/00
Terrance Johns	Maricopa	IT Supervisor	$53,363	$0	1/11/00
Marvin Collins	Maricopa	Customer and Comm. Rel. Mgr.	$88,177	$95,888	1/15/02
Christine Wynne	Maricopa	Customer Service Supervisor	$52,129	$53,427	1/15/02
Rebecca James	Maricopa	Cashier/Receptionist	$26,213	$35,701	1/15/02
Diane Lawrence	Maricopa	Customer Service Representative	$27,642	$32,093	1/15/02
Nancy Wurtz	Maricopa	Customer Service Representative	$28,547	$31,946	1/15/02
Sharon Barnes	Mohave	Customer Service Representative	$22,066	$22,215	1/15/02
Monica Turner	Mohave	Customer Service Representative	$21,295	$0	10/5/00
William Turner	Mohave	Coordinator New Development	$50,596	$0	8/16/00
Joyce Montgomery	Paradise	Customer Service Coordinator	$38,160	$0	4/30/00
Karen Henderson	Paradise	Customer Service Clerk	$26,052	$0	3/30/00
Colleen Bromley	Paradise	Office Manager	$58,100	$58,173	1/15/02

Positions Created by Acquistion

Name	Location	Job Title	Salary	Date Filled	Notes
N/A	Maricopa	Maint. Serv. Specialist	n/a	Never Filled	Eliminated
Wilkins, Karl B.	Maricopa	Operations Superintendent	$61,000	9/2/02	
Vacant (Temporary)	Paradise	Office Support (CS & Secretary)	n/a	Never Filled	Fill by temp agency
Stojicevic, Milorad D.	Mohave	Operations Engineer	$52,250	1/15/01	

ARIZONA-AMERICAN WATER COMPANY
2003 GENERAL RATE CASE
DOCKET NOS. WS-01303A-02-0867, 0868, 0869, 0870, and 0908
RESPONSE TO DATA REQUEST NO. 11

Response provided by: Robert Kuta

Title: Manager

Company Name: Arizona-American Water Company
Address: 19820 North 7th Street, Suite #201
Phoenix, AZ 85024

Company Response Number: AII 11-1

Q. Please identify all changes in employee salary structure since Arizona-American Water Company, Inc. acquired Citizens' systems. For each system, provide the amount of the impact on Test Year salaries and wages of applying the new salary structure to Test Year hours worked for each employee/position. Provide supporting calculations.

A. There have been no changes to the employee salary structure since Arizona-American Water Company acquired Citizen's water and wastewater assets in Arizona. Except as noted below, all employees were hired by the Company at the same wage rate that Citizens paid them. Changes to employee wages since the close of the acquisition transition have been normal merit increases, promotion increases and other routine adjustments to wage rates.

The following three individuals were hired by the Company at wage rates higher than their pay at Citizens. In all three cases the increased in salary was attributable to an increased scope of responsibility, not due to a change in the salary structure.

Name	Citizens Job Title	American Job Title	Citizens Annual Salary	American Annual Salary	Difference
Brian Biesemeyer	Mgr. Operations	Operations Manager	$85,176	$92,300	$7,124
Robert Kuta	Director	Manager	$92,144	$95,628	$3,484
Ray Jones	V.P. and G.M.	President	$95,446	$119,990	$24,544

Total Annual Difference $35,152

ARIZONA-AMERICAN WATER COMPANY
2003 GENERAL RATE CASE
DOCKET NOS. WS-01303A-02-0867, 0868, 0869, 0870, and 0908
RESPONSE TO DATA REQUEST NO. 34

Response provided by: Thomas J. Bourassa

Title: Consultant

Company Name: Thomas J. Bourassa, CPA
Address: 727 W. Maryland Ave. #12
Phoenix, AZ 85013

Company Response Number: AII 34-4

Q. For each system, please identify and quantify employee positions and the related salaries & wages eliminated since Arizona-American Water Company acquired Citizens' systems. Also, identify and quantify the salaries and wages relating to positions created and filled six months after Arizona-American Water Company acquired Citizens' systems.

A. Please refer to Company Response Number 6-9 for information regarding all positions created or eliminated as a result of Arizona-American Water Company's acquisition of Citizens water systems. The attached file summarizes additional positions eliminated or created and filled within 6 months of the acquisition. These changes were the result of ongoing organizational needs rather than as a direct result of reorganization related to the acquisition.

(See attached file: AII 34-4 (Exhibit).xls)

Name	Location	Status	Job Title	Related Salary	Date Filled or Eliminated
Positions created and filled within 6 months after closing					
Zamora, Daniel V.	Maricopa	**New Post Close**	Plant Operator	$33,930	6/24/2002
Wahlers, Clifford D.	Maricopa	**New Post Close**	Senior Engineering Technician	$49,000	6/24/2002
Positions eliminated since closing					
Never Filled	Maricopa	**Eliminated Post Close**	Maint. Serv. Specialist	$0	
Never Filled	Maricopa	**Eliminated Post Close**	Engineering Tech	$0	
Never Filled	Maricopa	**Eliminated Post Close**	Field Services Representative	$0	
Never Filled	Maricopa	**Eliminated Post Close**	Meter Reader	$0	
Terri Baysinger	Mohave	**Eliminated Post Close**	Operations Specialist	$46,974	9/2/2002
Rick Bohl	Paradise	**Eliminated Post Close**	Utility Worker	$27,791	4/19/2002

ROGERS

BEFORE THE ARIZONA CORPORATION COMMISSION

MARC SPITZER
Chairman
WILLIAM A. MUNDELL
Commissioner
JEFF HATCH-MILLER
Commissioner
MIKE GLEASON
Commissioner
KRISTIN K. MAYES
Commissioner

IN THE MATTER OF THE APPLICATIONS OF ARIZONA-AMERICAN WATER COMPANY, INC., AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS SUN CITY WEST WATER AND WASTEWATER DISTRICTS, SUN CITY WATER AND WASTEWATER DISTRICTS, MOHAVE AND HAVASU WATER DISTRICTS, AGUA FRIA AND ANTHEM WATER AND WASTEWATER DISTRICTS, AND TUBAC WATER DISTRICT	DOCKET NOS. WS-01303A-02-0867 WS-01303A-02-0868 W-01303A-02-0869 WS-01303A-02-0870 W-01303A-02-0908

SURREBUTTAL

TESTIMONY

OF

DENNIS R. ROGERS

PUBLIC UTILITIES ANALYST IV

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

OCTOBER 31, 2003

TABLE OF CONTENTS

EXECUTIVE SUMMARY
ARIZONA AMERICAN WATER COMPANY
Docket No. WS-0103A-02-0867 et al.

The surrebuttal testimony of Staff witness Dennis R. Rogers addresses the following issues:

Rebuttal testimony of the Company witness Mr. Kozoman
Mr. Kozoman's criticisms of Staff's rate design are based on two erroneous underlying principles. First, he misinterprets designing rates on a cost basis to mean that the company should recover its costs regardless of the quantity of water sold by recovering fixed costs in the monthly minimum charge and variable costs through the commodity charge instead of charging customers based on the cost of service attributed to them. Second, he overstates the monthly minimum charges by including the demand costs determined by a cost of service study ("COSS") solely in the monthly minimum charge charges. Contrary to Mr. Kozoman's assertion that Staff's rate design is radically different from the current design and violates the principle that rates should be based on the cost of service, Staff demonstrates that its proposed rate design, although different, is not radical and is consistent with cost of service principles. Thus his claims regarding subsidies among classes in Staff's rate design are inaccurate.

Mr. Kozoman's criticisms that Staff's three tier rate design will encourage inefficient use fails to recognize the difference between discretionary and nondiscretionary usage and ignores the related implications for efficient use for all customers. Mr. Kozoman's criticisms of the first tier in Staff's rate design as a life line rate fails to recognize that the life line benefit is simply an ancillary benefit. It was not designed as a life line rate and that customers have a non-discretionary water requirement. It would provide less costly water to those that choose to limit their consumption to necessity levels and as a by product may serve as a life line rate.

Mr. Kozoman's incorrectly claims Staff's testimony advanced no rationale as to why the rate design, as proposed will lead to a long-term reduction in average water use. Staff's testimony states that its rate design encourages planners to design growth to efficiently use water. Planners will try to avoid the higher costs of the inverted tier rate structure, and design facilities accordingly.

Mr. Kozoman claims that the rate design for multi-unit housing has been previously determined by the Commission and therefore should not be readdressed. Customer complaints show that this remains an important issue. A rate case is the appropriate forum for re-examining the rate design and each rate case stand on it own merits.

Response to direct testimony of the Town of Youngtown witness Micheal E. Burton
Mr. Burton proposes to change from the current commercial two-inch and three-inch metered rates to irrigation rates. Staff does not believe that other customers should subsidize a discounted rate for recreational purposes.

INTRODUCTION

Q. Please state your name, occupation, and business address.

A. My name is Dennis R. Rogers. I am a Public Utilities Analyst IV employed by the Arizona Corporation Commission ("ACC" or "Commission") in the Utilities Division ("Staff"). My business address is 1200 West Washington Street, Phoenix, Arizona 85007.

Q. Are you the same Dennis R. Rogers who filed direct testimony in this case?

A. Yes, I am.

Q. What is the purpose of your surrebuttal testimony in this proceeding?

A. The purpose of my surrebuttal testimony in this proceeding is to respond, on behalf of the Staff, to the rebuttal testimony of Arizona-American Water Company's ("Company") witness Ronald L Kozoman, C.P.A. regarding rate design. Furthermore, my surrebuttal testimony responds to the prefiled direct testimony of Town of Youngtown witness Michael E. Burton regarding changing rates from commercial two-and three-inch meters to irrigation rate to service Maricopa Lake.

SUMMARY OF COMPANY'S REBUTTAL POSITION REGARDING STAFF'S RATE DESIGN

Q. Please summarize the Company witness Mr. Kozoman's criticisms of Staff's Testimony.

A. Mr. Kozoman takes exception with Staffs testimony and is in disagreement with Staff on the following issues:

1. Staff's rate design was not based on a cost of service study
2. Staff's rate design results in subsidization from large users to low volume users.

3. Staff's rate design results in the majority of customers having decreased monthly bills.
4. Staff's rate design would encourage inefficient water use by sending the wrong pricing signal and that the first tier rates developed do not reflect true life line rate considerations as espoused by the American Water Works Association ("AWWA").
5. Staff's rate design ignores existing customers
6. Staff's rate design will not promote reductions in average use in the long term.
7. Staff's rate design and its purported "economic signal" ignore present customer impact.
8. Staff's rate design did not take into effect the differences in Havasu's bill counts and the amounts reported on the general ledger.
9. Arguments concerning the Havasu and Mohave multi-unit billing recommendation.

Q. Please explain how Staff organizes its surrebuttal testimony.

A. Staff organizes its testimony in the sequence of the Company's points of disagreement listed above, followed by a comment on the Town of Youngtown's request to be included in the Sun City irrigation rate, and a response to Staff's surrebuttal testimony concerning recommended revenue changes.

COST OF SERVICE STUDY

Q. Did Staff review the Company's rebuttal testimony regarding its cost of service study ("COSS") filed as rebuttal testimony?

A. Yes, it has. Staff was only able to undertake a cursory review of the COSS, given the fact that it was not filed until the Company filed its rebuttal testimony. Staff was able to conduct a cursory review of the COSS, including those portions addressing rate design.

Q. Is there any portion of the cost of service study with which Staff disagrees?

A. Yes. In addition to the schedules that are normally included in a COSS, represented by schedules G-1 to G-7, the Company has prepared schedules G-8 and G-9. Schedules G-8 and G-9 are supplemental information that are not an integral part of the COSS.

Staff finds the methodology and figures used by the Company in developing the COSS for schedules G-1 to G-7 acceptable. However, the supplemental Schedules G-8 and G-9 misapply the results of the COSS. Schedule G-8 purports to demonstrate the difference between what COSS supports as a minimum charge and Staff's recommended monthly minimum charge. Staff disagrees with Mr. Kozoman's calculation of the monthly minimum charges on Schedule G-8 because he includes demand costs in his calculation.

Q. Why is it inappropriate to include demand costs in the monthly minimum charge?

A. Demand costs should be charged to customers based on the cost of service attributed to them. Absent demand meters, the best correlation to the demand factor is the quantity used.

Q. What is the apparent reason the Company prepared Schedule G-9?

A. Schedule G-9 shows, based on the Company's erroneous calculation of the minimum monthly charge, the number of gallons that must be sold to a 5/8-inch meter customer each month to cover all costs, so that the Company generates its authorized rate of return and that the average use is less than that calculated level of usage.

Q. Is the consumption level where the Company recovers all costs directly transferable to rates in a cost of service basis rate design?

A. No. Schedule G-9 shows the rates that recover costs consistent with the incurrence of fixed and variable costs by the Company. This type of rate design provides for full recovery of all costs at every use level. However, it does not allocate costs to customers based on their causation. For example, placing fixed demand costs in the minimum charge fails to recognize that customers utilizing the same meter size place different demands on the system according to their own particular peak usage requirements. In the absence of demand meters, the best correlation to the demand factor is the quantity used. Therefore rates based on the fixed and variable costs of the Company are incompatible with rates that assign costs to customers based on cost causation.

STAFF'S RATE DESIGN

Q. Does Staff agree with the Company's assertion that Staff's rate design contains radical changes that require a cost of service study?

A. No. The rate design change is significant, but not radical. Staff has made changes regarding the inverted three tier design but has followed rate design principles and has preserved the existing monthly minimum charge to commodity rate ratios in its design.

CLAIMS REGARDING SUBSIDIES AMONG SMALL AND LARGE USERS

Q. Does the Company's Schedule G-9 demonstrate its assertion that Staff's proposed rate design generates a subsidy by undercharging customers in the first block and overcharging those in the upper tier?

A. No. Schedule G-9 is based on the erroneous assumption that all costs included in the commodity rates are incurred at average cost. It fails to recognize the increasing costs of developing, treating, and delivering incremental supply.

IMPACT OF STAFF'S RATES ON THE MAJORITY OF CUSTOMERS MONTHLY BILLS

Q. Do you agree with Mr. Kozoman's statements that majority of customers will actually see a decrease in their monthly bills?

A. No. A majority of the customers will see an increase in their monthly bills under Staff's recommended rates. (Schedule DRR-2) The median usage billing analyses that were filed as part of Staff's direct testimony to Residential 5/8-inch meters and their total bill counts are as follows:

Increases or (Decreases)

System	Bill Counts	Median Usage
Sun City West Water	173,844	13.94%
Sun City Water	231,576	30.81%
Mohave Water	(150,192)	(17.43%)
Agua Fria Water	(142,007)	(20.00%)
Anthem Water	(21,899)	(35.70%)
Tubac Water	4,833	35.94%
Havasu Water	(13,608)	(12.69%)
Totals	82,547	

In those systems where the median bill increases, the majority of customers will receive increases.

CLAIMS THAT THE RATE DESIGN WILL ENCOURAGE INEFFICIENT USE

Q. Does Staff agree with Mr. Kozoman's statement that Staff's proposed rate design will encourage inefficient water use?

A. No. The criticism that the three tier inverted rate design encourages inefficient used is incorrect. The argument does not acknowledge the fact that there is a difference between discretionary and nondiscretionary usage. The first tier is set at a level that is not discretionary but is designed to cover basic health and safety necessities. Accordingly, use on the first tier is not expected to increase.

CLAIMS THAT THE RATE DESIGN IGNORES EXISTING CUSTOMERS

Q. Does Staff agree with Mr. Kozoman's statement that Staff's rate design "ignores the impact on the Company's existing customers, particularly commercial customers on larger meters."

A. No. Staff's rate design appropriately recognizes that customers who use high volumes of water make greater use of a limited existing resource. The rate design encourages conservation and anticipates that those who use the greatest quantities should contribute a corresponding level of revenues.

THE PURPOSE OF A COST OF SERVICE STUDY

Q. Mr. Kozoman states that the purpose of a cost of service study "is to offer guidance in setting rates to be charged for utility service." However he also states, "public policy may have a significant effect on rate design." Does Staff agree?

A. Yes. Moreover, Staff agrees with Mr. Kozoman's statement that, "The cost of service study will provide the cost of the commodity, but it will not indicate where rate tiers should be set."

Q. Does Staff agree with Mr. Kozoman's statement that the Commission must base its rates on cost?

A. Staff agrees that cost of service is a component of rate design, but other factors should also be considered. Some of the other factors that affect rate design are limited resource availability, environmental concerns, and the effects of public policy. Mr. Kozoman also recognized that other appropriate considerations, such as public policy, may have an impact on rate design.

Q. Did Mr. Kozoman provide any evidence to support his assertion that the cost to produce 20,000 gallons is twenty times the cost of producing 1,000 gallons?

A. No. Comparisons between costs to produce different amounts of water require an incremental cost study. An incremental cost study was not submitted with the Company's rebuttal testimony.

HAVASU DIFFERENCES BETWEEN BILL COUNTS AND GENERAL LEDGER

Q. On page 18 of his rebuttal testimony Mr. Kozoman states that "Staff did not include the difference between the bill count revenues and the general ledger in their proposed rates. I did." What does this mean?

A. When the Company filed its application there was a reconciling item labeled as the difference between the General Ledger revenues recorded and those supported by the bill counts of $6,311. Staff continued to carry this amount as a reconciling item. It is Staff's opinion that the booked to billed ratio in the test year is representative and recurring.

PROFITABILITY BY CUSTOMER USE

Q. What is Staff's response to Mr. Kozoman statement that although the commodity rate proposed by Staff produces a profit, the Company makes no profit from those customers using less than 4,000 gallons a month?

A. A rate design does not necessarily produce a profit from each and every customer on the system. The Company's costs and returns are based upon the entire mix of classes and levels of usage.

RE-EXAMINATION OF HAVASU AND MOHAVE MULTI-UNIT BILLING

Q. Does the fact that in the prior rate case the previous owners proposed changing the billing method for multi-unit customers and Staff recommended that the current methodology be continued obviate re-examining this issue in the current case?

A. No. The experience from case to case is different. Each case stands it own merits. Past practice does not negate the need for changing to a less cumbersome and more equitable system. Customer complaints show that this issue should be revisited.

Q. Does Staff agree with Mr. Kozoman's statement that while the Company is not opposed to changing the rate structure, other customers would have to make up the revenue shortfall?

A. Yes. Any change in rate design will result in increases to some customers and decreases to others. The challenge is to find a rate design that is more equitable while observing gradualism. Staff is only recommending that a reasonable effort be made to simplify the rate design equitably in the next rate case.

YOUNGTOWN'S REQUEST

Q. In direct testimony, Michael E. Burton, witness for the Town Of Youngtown, proposes to change from the current commercial two-inch and three-inch metered rates to irrigation rates. The Company does not oppose the Commission authorizing Youngtown to be included on the lower cost irrigation rate, however, it has stated that the revenue shortfall would have to be made up from other customers. Is Staff recommending the change?

A. No. Youngtown would like to move from commercial two-inch and three-inch meter billings to an irrigation rate in order to service Maricopa Lake and save approximately

$3,600 annually. Staff's opinion is that other customers should not be required to subsidize a discounted rate for recreational purposes.

STAFF'S SURREBUTTAL RECOMMENDED REVENUE CHANGES

Q. Did Staff prepare new rate designs to reflect the changes recommended in Staff's surrebuttal positions?

A. No. There was not enough time to redesign the rates for all ten of the Arizona American systems before the deadline for the filing of the surrebuttal testimony. However, if the Administrative Law Judge desires, Staff could file these as late filed exhibits.

Q. Does this conclude your testimony?

A. Yes, it does.

REIKER

BEFORE THE ARIZONA CORPORATION COMMISSION

MARC SPITZER
Chairman
WILLIAM A. MUNDELL
Commissioner
JEFF HATCH-MILLER
Commissioner
MIKE GLEASON
Commissioner
KRISTIN MAYES
Commissioner

IN THE MATTER OF THE APPLICATOIN OF ARIZONA-AMERICAN WATER COMPANY, INC., AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS SUN CITY WEST WATER AND WASTEWATER DISTRICTS.	)	DOCKET NO. WS-01303A-02-0867
IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, INC., AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS SUN CITY WATER AND WASTEWATER DISTRICTS.	)	DOCKET NO. WS-01303A-02-0868

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, INC., AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS MOHAVE WATER DISTRICT AND ITS HAVASU WATER DISTRICT	)	DOCKET NO. WS-01303A-02-0869
IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, INC., AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM WATER DISTRICT, ITS AGUA FRIA WATER DISTRICT, AND ITS ANTHEM/AGUA FRIA WASTEWATER DISTRICT.	)	DOCKET NO. WS-01303A-02-0870
IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, INC., AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS TUBAC WATER DISTRICT	)	DOCKET NO. WS-01303A-02-0908

SURREBUTTAL
TESTIMONY
OF

JOEL M. REIKER

PUBLIC UTILITIES ANALYST V
UTILITIES DIVISION
OCTOBER 31, 2003

EXECUTIVE SUMMARY
JOEL M. REIKER
DOCKET NO. WS-01303A-02-0867

The surrebuttal testimony of Staff witness Joel M. Reiker addresses the following issues:

Updated rate of return ("ROR") recommendation Staff's updated ROR recommendation is 6.5 percent, based on a 9.0 percent return on equity ("ROE"), and a 4.8 percent cost of debt. Staff's updated capital structure consists of 60.1 percent debt and 39.9 percent equity.

Response to the rebuttal testimony of Company witness Thomas M. Zepp – Staff responds to the rebuttal testimony of Thomas M. Zepp:

Dr. Zepp's exclusive reliance on analysts' forecasts of earnings per share ("EPS") growth and retention ("br") growth in his discounted cash flow ("DCF") analysis is inappropriate because it assumes that investors ignore other information such as past growth.

Dr. Zepp's expected infinite annual dividend growth rate in his DCF analysis is unreasonable because, based on past gross national product ("GDP") growth, it assumes water utility industry earnings will grow faster than the overall economy, forever.

The Commission should *not* rely on Dr. Zepp's restatement of Staff's constant-growth DCF estimate because it ignores dividends per share ("DPS") growth. The constant-growth DCF formula is predicated on dividend growth.

The Commission should *not* rely on Dr. Zepp's restatement of Stsff's multi-stage DCF estimate because Dr. Zepp misapplies *Value Line* projections, and his assumptions are speculative.

The Commission should *not* rely on interest rate "projections" made by professional analysts because "the direction of interest rates cannot be predicted any better than by a flip of a coin." Analysts who project interest rates do not have any more information than what is already reflected in the current rate.

Corporate bond yields *cannot* be used to imply meaningful equity risk premiums because a corporate bond contains some default risk which is diversifiable, therefore the investor's expected rate of return is lower than the bond's yield to maturity. All risk comparisons should be to default-free government bonds.

The CAPM adopted by Staff and RUCO conforms to the original CAPM developed by Nobel laureate Professor William Sharpe. It is the version most widely used by companies and it is more popular than any other method of estimating the cost of equity among firms.

The findings of CAPM tests that found the zero-beta return to be higher than the return on U.S. Treasuries *cannot* be appropriately applied to Staff's CAPM.

The Commission should *not* rely on Dr. Zepp's "risk premium" method because it is very subjective and *not* preferred to the CAPM. Further, Staff has concerns with the quality of the data Dr. Zepp relied on in his second risk premium study.

Mr. Reiker also responds to the rebuttal testimonies of Company witnesses David Stephenson and intervenor Walter W. Meek.

TABLE OF CONTENTS

Schedules and Exhibits

INTRODUCTION

Q. Please state your name and business address.

A. My name is Joel M. Reiker. My business address is 1200 West Washington Street, Phoenix, Arizona 85007.

Q. Are you the same Joel M. Reiker who previously filed direct testimony in this proceeding?

A. Yes.

Q. What is the purpose of your surrebuttal testimony?

A. The purpose of my surrebuttal testimony is to provide Staff's updated rate of return ("ROR") recommendation. I also respond to criticisms of Staff's direct testimony contained in the rebuttal testimony of Thomas M. Zepp, and I respond to company witness David Stephenson and intervenor Walter W. Meek.

I. UPDATED RATE OF RETURN RECOMMENDATION

Q. Is Staff updating its ROR recommendation?

A. Yes. Staff is updating its ROR recommendation based on its updated return on equity ("ROE") recommendation, updated cost of debt recommendation, and updated capital structure recommendation – all of which are discussed in detail in this testimony.

Q. What is Staff's updated ROR recommendation?

A. Staff's updated ROR recommendation is shown in Schedule JMR-S8. Staff's updated ROR recommendation is also shown below:

Table 1

	Weight	Cost	Weighted Cost
Long-term Debt	60.1%	4.8%	2.9%
Common Equity	39.9%	9.0%	3.6%
Cost of Capital/ROR			**6.5%**

Staff addresses its updated ROE recommendation in the next section and its updated capital structure and cost of debt in section IV.

II. UPDATED COST OF EQUITY ESTIMATES

Q. What is Staff's updated ROE recommendation?

A. Staff's updated ROE recommendation is 9.0 percent. Staff's updated ROE recommendation of 9.0 percent is based on its updated estimate of the cost of equity to the sample water companies, which is 8.5 percent. As in its original ROE recommendation, Staff is adding 50 basis points to its updated estimate to account for Arizona-American's capital structure, which reflects greater financial risk compared to the sample water companies. Staff's updated cost of equity analysis is shown in Schedules JMR-S1 through JMR-S15. The results are also shown in the following tables:

Table 2: Sample Water Companies

Model	Average Estimate
Discounted Cash Flow	9.0%
Capital Asset Pricing Model	8.1%
Average	8.5%

Table 3: Sample Gas Companies

Model	Average Estimate
Discounted Cash Flow	9.8%
Capital Asset Pricing Model	8.8%
	9.3%

Staff updated its DCF and CAPM estimates of the cost of equity to the sample water companies and sample gas companies with current information from *Value Line* and market data of September 25, 2003.

As shown in the above tables, the average estimate of the cost of equity to the sample water companies has decreased by 70 basis points and the average estimate of the cost of equity to the sample gas companies has decreased by 100 basis points.

As mentioned on pages 34 – 35 of Staff's direct testimony, the sample gas companies are riskier than the sample water companies in terms of market risk. Based on Staff's updated CAPM analysis, the cost of equity to the sample gas companies is approximately 70 basis points higher than the cost of equity to the sample water companies.

III. RESPONSE TO THE REBUTTAL TESTIMONY OF THOMAS M. ZEPP

Lack of Perspective

Q. On page 3 of his rebuttal testimony Dr. Zepp states that the cost of equity estimates made by Staff and RUCO "lack perspective." (See rebuttal testimony of Thomas M. Zepp. p. 3 at 9.) In support of his claim Dr. Zepp offers Rebuttal Table 1, in which he apparently shows that the sample water companies have authorized ROEs that are higher than what Staff and RUCO recommend. (See rebuttal testimony of

Thomas Zepp. P. 3 at 7 – 13.) Does Dr. Zepp's Rebuttal Table 1 provide any useful information to the Commission?

A. No, it does not. Dr. Zepp has essentially resorted to relying on the comparable earnings method of estimating the cost of equity. I will explain in more detail why the Commission should not rely on the comparable earnings method in responding to the rebuttal testimony of Walter Meek. However, it should be noted here that in Staff's direct testimony I provided a quote from Professor Laurence Booth of the Rotman School of Management at the University of Toronto. Professor Booth simply points out the well known fact that "Theoretically, there is no question whatsoever that a market-to-book ratio of 1.50 indicates that the [cost of equity] is less than the [allowed rate of return on equity]." Professor Booth has never even come across a company witness who would disagree with this basic proposition.[1] The sample water companies have an average market-to-book ratio of 2.3 and the sample gas companies have an average market-to-book ratio of 1.7. Therefore, Dr. Zepp's comparable earnings analysis cannot be relied upon as a reasonable gauge of the current cost of equity, and neither can his risk premium studies which rely on authorized and earned book/accounting returns.

Q. Do the cost of equity estimates made by Staff represent fair returns?

A. Yes. I will explain in more detail why Staff's recommended returns represent fair returns in responding to the rebuttal testimony of Walter Meek.

[1] Booth, Laurence. "The Importance of Market-to-Book Ratios in Regulation." NRRI Quarterly Bulletin. Winter 1997. pp. 415 – 425.

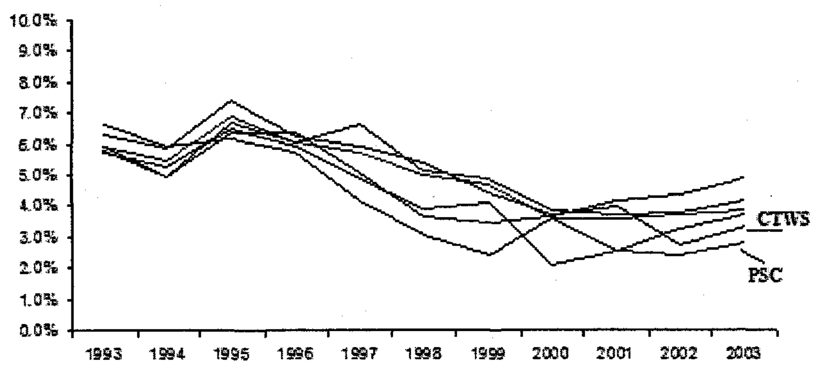
The DCF Method

Sample Selection

Q. On page 8 of his rebuttal testimony Dr. Zepp states that Connecticut Water still appears to be a merger or acquisition candidate and should not be included in a sample to estimate DCF equity costs. On page 9 Dr. Zepp claims that with such a "super-inflated stock price," dividend yield and DCF cost of equity estimates for Connecticut Water will be biased downwards. (See rebuttal testimony of Thomas M. Zepp. P. 9 at 10 – 11.) Does this appear to be the case?

A. No. Chart S1 shows annual dividend yields for each sample water company over the past ten years. As the chart shows, Connecticut Water's (CTWS) dividend yield appears to be in line with the rest of the sample water companies. In fact, Philadelphia Suburban (PSC), and not Connecticut Water, has seen its dividend yield decrease more than the other sample water companies.

Chart S1: Annual Dividend Yields of Sample Water Co.s



Additionally, DCF cost of equity estimates for Connecticut Water do not appear to be biased downwards. Staff's original DCF cost of equity estimate for Connecticut Water is

8.72 percent and Staff's updated DCF cost of equity estimate for Connecticut Water is 8.52 percent.[2]

Q. On page 11 of his rebuttal testimony Dr. Zepp criticizes Staff's statement that, based on its CAPM analysis, the cost of equity to the sample gas companies is approximately 100 basis points higher than the cost of equity to the sample water companies, based on the difference in market risk. Dr. Zepp states that the 100 basis points "overstates the general differential between beta risk for these types of utilities." (See rebuttal testimony of Thomas M. Zepp. p. 11 at 22 – 24.) Please respond.

A. As mentioned in the previous section, according to Staff's updated CAPM (which utilizes adjusted betas published by *Value Line*) the cost of equity to the sample gas companies is approximately 70 basis points higher than the cost of equity to the sample water companies. However, contrary to what Dr. Zepp claims, this 70 basis point differential actually *understates* the general differential in risk for these types of utilities suggested by a more relevant beta calculation. This is because, as mentioned on pages 34 – 35 of Staff's direct testimony, betas published by *Value Line* have been "adjusted" for their presumed tendency to converge toward 1.0. The adjustment process pushes high betas down toward 1.0 and low betas up toward 1.0. However, Professor William Sharpe, one of the Nobel Laureates who developed the CAPM, states in his text *Investments* that it makes more sense to adjust beta toward the industry mean beta, rather than 1.0:

> Information of the type shown in Table 15.5 can be used to adjust historical betas. For example, the knowledge that a corporation is in the air transport industry suggests that a reasonable prior estimate of the beta of its stock is 1.8. Thus, it makes more sense to adjust its historical beta toward a value of 1.8 than to 1.0, the average for all stocks, as was suggested in equation (15.9).[3]

[2] Average of constant growth and multi-stage DCF estimates.
[3] Sharpe, William F., Gordon J. Alexander. *Investments*. 4th edition. Prentice Hall. Englewood Cliffs, NJ. 1990. 431.

Relying on raw (unadjusted) betas for the sample water and gas companies of .37 and .53, respectively, suggests that the cost of equity to the sample gas companies is 120 basis points higher than the cost of equity to the sample water companies.[4]

Q. On page 10 of his testimony Dr. Zepp questions why Staff did not include South Jersey Industries in its sample of gas utilities. (See rebuttal testimony of Thomas M. Zepp. p. 10 at 1 – 4.) Does Staff have a response?

A. Yes. Staff did not include South Jersey Industries in its sample of gas utilities for the same reason Dr. Zepp did not include it in his sample. That is, at the time Dr. Zepp prepared his direct testimony, South Jersey Industries only had 55 percent of its revenues from gas operations.

The Superiority of Spot Yields

Q. On page 12 of his rebuttal testimony Dr. Zepp defends his use of an average dividend yield rather than the spot yield in his DCF analysis. Are any of the reasons Dr. Zepp offers for using an average yield, rather than a spot yield, valid?

A. No. As stated in Staff's direct testimony, there is no point in "smoothing" stock prices for use in a model that assumes perfect markets.[5] Even in its weakest form, the efficient markets hypothesis ("EMH") implies that past rates of return and other historical market data should have no relationship with future rates of return – security prices follow a "random walk". In other words, the best forecast of tomorrow's yield is simply today's yield.

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[4] The basis point difference is calculated as the difference between risk premiums calculated with raw betas of .37 and .53.

[5] Myers, Stewart C. "The Application of Finance Theory to Public Utility Rate Cases." *Bell Journal of Econommics and Management Science*. Spring 1972. p. 73.

Q. How does Staff respond to Dr. Zepp's statement on page 12 of his rebuttal testimony that "spot yields provide a false sense of accuracy and should not be used to estimate DCF equity costs?" (See rebuttal testimony of Thomas M. Zepp. P. 12 at 11 – 12.)

A. His statement is incorrect. In Staff's direct testimony I cited a 1996 *Public Utilities Fortnightly* article by Steven Kihm. In that article Mr. Kihm reported the results of his empirical analysis of utility bond yields and electric utility dividend yields from 1954 to 1993. The results of his study of historical average and spot dividend yields were qualitatively identical to his results for bond yields:

> By all accuracy measures, the spot forecast outperforms the forecasts based on historic averages. The spot forecast is also dominant in terms of volatility reduction. And we see clearly the longer the averaging period, the worse the forecasting method by any measure.

Averaging historical stock prices for use in the D_1/P_0 component of the DCF model incorrectly assumes that future prices are likely to revert to some historical mean. Relevant research suggests that this simply is not the case for stock prices and other data used in business. Company witness David Stephenson recognizes this concept on pages 25 – 26 of his rebuttal testimony when he criticizes Staff for applying an interest rate of 1.30 percent, rather than 1.28 percent (the most current cost), to the Company's Maricopa County bonds.

Dividend Growth

Q. On page 13 of his rebuttal testimony Dr. Zepp responds to Staff's direct testimony at page 40, line 1. Does Dr. Zepp misquote Staff's direct testimony?

A. Yes. Dr. Zepp states that Staff testifies that he places "exclusive reliance on analysts' forecasts of near-term earnings growth." (See direct testimony of Thomas M. Zepp. P. 13 at 21 – 22.) Dr. Zepp argues that he did not do that. Staff agrees with him. The actual quote from page 40, line 1, of Staff's direct testimony states that Dr. Zepp places "exclusive reliance on analysts' forecasts in his DCF analysis." Dr. Zepp relies exclusively on analysts' forecasts of earnings per share ("EPS") and sustainable growth in making his DCF cost of equity estimates.

Q. Is Dr. Zepp's exclusive reliance on analysts' forecasts of EPS growth and sustainable growth appropriate?

A. No. Dr. Zepp's exclusive reliance on analysts' forecasts of EPS growth and sustainable growth in his DCF analysis is inappropriate because it assumes that investors ignore other information such as past growth.

Dr. Zepp agrees that forecasts of EPS vary directly with ROE forecasts. (See rebuttal testimony of Thomas M. Zepp. P. 15 at 7 – 8.) Therefore, to the extent analysts' forecasts of near-term EPS growth are overly optimistic, so are analysts' forecasts of sustainable (br) growth.

Q. On page 15 of his rebuttal testimony Dr. Zepp states that he "did an analysis of *Value Line* ROE forecasts for gas distribution companies in 1999 and found that ... in real terms (i.e., forecasts adjusted for the difference in expected and actual inflation) *Value Line* ROE forecasts for gas distribution utilities were unbiased." (See rebuttal testimony of Thomas M. Zepp. p. 15 at 1 – 6.) Please comment.

A. The "analysis" Dr. Zepp refers to appears to be an analysis made by a consultant for the Northwest Industrial Gas Users association named James Rothschild. Mr. Rothschild found *Value Line* ROE projections for Gas utilities to be *biased upwards* by 1.3 percent during the period 1977 to 1994. Dr. Zepp adjusted the data in Mr. Rothschild's study to account for expected and actual inflation. Interestingly, in rebuttal testimony in Oregon docket UG-132, Dr. Zepp criticized Mr. Rothschild's study for various reasons and stated that it "proves nothing" (page 42 at 11). In discussing the results of his own modifications to Mr. Rothschild's analysis, Dr. Zepp stated that they "may be more due to serendipity than to any other cause" (page 44 at 5 – 6.)

Regardless of the results of Mr. Rothschilds' analysis, Dr. Zepp relies on *Value Line*'s *nominal*, not *real*, ROE forecast, and ultimately recommends a *nominal*, not *real*, return on equity. Therefore, to the extent *Value Line* ROE forecasts remain overly optimistic; Dr. Zepp includes this bias in his DCF estimate.

Q. On page 14 of his rebuttal testimony Dr. Zepp responds to the quote Staff provided from Professor Myron Gordon in a Keynote Address he gave in 1998, in which he cited the Federal Energy Regulatory Commission's ("FERC") decision to use an average of security analysts forecasts of short-term earnings growth and past growth in gross national product ("GNP"). In Response to that quote, Dr. Zepp attempts to restate Staff's constant-growth DCF estimate. Is his restatement valid?

A. No. First, Dr. Zepp has simply plugged the historical average rate of growth in gross domestic product ("GDP") into "g" in Staff's constant-growth DCF analysis. This does not conform to the FERC method as described by Professor Gordon. Second, in the speech cited by Staff, Professor Gordon was offering his judgment on whether relying on a short-term forecast of earnings growth *alone*, or its average with a typically lower figure, provides a more reasonable figure. Professor Gordon did not address the reasonableness of the various indicators of dividend growth used by Staff in its constant growth DCF analysis.

Q. Does Staff have any comments on Dr. Zepp's own DCF estimates with respect to GDP growth that reveal the unreasonableness of his own expected dividend growth rate?

A. Yes. According to his Update Table 13, Dr. Zepp's estimate of the expected dividend growth rate in his DCF analysis is 7.0 percent. All else equal, assuming an expected dividend growth rate in the constant-growth DCF model that is higher than the rate of growth in GDP essentially assumes that water utility industry earnings will grow faster than the overall economy - forever.[6] Wharton School finance professor Jeremy Siegel discusses this concept in his book *Stocks for the Long Run*. On page 113 of *Stocks for the Long Run* Professor Siegel discusses the ratio of after-tax corporate profits and noncorporate business profits to national income:

> Although both these ratios fluctuate with the business cycle, it should be apparent that neither could grow faster than national income in the long run. If this occurred, it would imply that the owners of capital would receive an ever-increasing portion of the economic pie, and therefore, labor would receive an ever-shrinking portion. Such a development would be a recipe for social unrest and raise calls for government action to redress such a trend.[7]

According to the January 26th, 2002, edition of *The Economist*:

> Much of the surge in borrowing in the late 1990s may have been based on overly optimistic forecasts for income. Last year saw the biggest fall in profits since the 1930s. Even when the economy recovers, profits are unlikely to grow at the double-digit annual rate that has come to be expected by many investors and borrowers. *Over the long term, profits cannot grow faster than nominal GDP, which is unlikely to rise by more than 5-6% a year.*[8] (emphasis added)

The following table shows Dr. Zepp's constant-growth DCF estimate adjusted to reflect the above information. Staff has simply substituted Dr. Zepp's 7.0 percent expected dividend growth rate with a more reasonable 5.5 percent expected dividend growth rate, as suggested by *The Economist*:

[6] This assumes water utilities do not become net purchasers of shares into the infinite future, which is unlikely.
[7] Siegel, Jeremy J. *Stocks for the Long Run*. Third edition. McGraw-Hill, New York. 2002. p. 113.
[8] "Dicing with Debt – Special Report." *The Economist*. January 26, 2002. pp. 22 – 24.

Table 4

D_1/P_0	+	g	=	k
3.5%	+	5.5%	=	9.0%

Q. **On pages 43 to 44 of his rebuttal testimony Dr. Zepp states that investors "would realize the forecasts of slow near-term growth of DPS and past slow growth in DPS are the result of actions taken by the utilities to prepare for the future and that such differential growth in EPS and DPS allows higher dividend growth in the future." (See rebuttal testimony of Thomas M. Zepp. p. 43 at 26 and p. 44 at 1 – 3.) Does Staff necessarily agree?**

A. No. It is more reasonable to interpret dividend growth as conveying management's assessment of prospects for future earnings. Therefore, the obvious reason for DPS growth to be slower than EPS growth is management's lack of confidence that extremely high earnings growth can be sustained into the indefinite future, as Dr. Zepp assumes. On pages 36 and 40 of his rebuttal testimony Dr. Zepp recognizes Professor William Sharpe as an authority. On page 419 of his text *Investments* Professor Sharpe states:

> Both interviews with corporate executives and empirical analyses of financial data indicate that most firms have a target payout ratio that changes relatively little from year to year. Such a value represents a desired ratio of dividends to earnings over some relatively long period. Alternatively, it may be thought of as a target ratio of dividends to *long-run* or *sustainable earnings.*
>
> *Few firms attempt to maintain a constant ratio of dividends to current earnings, since at least some of the variation in earnings from year to year is likely to be transitory.* Moreover, since many corporate executives appear to dislike cutting dividends, regular payments are often increased only when management believes it will be relatively easy to maintain the new, higher level in the future…[9] (emphasis added)

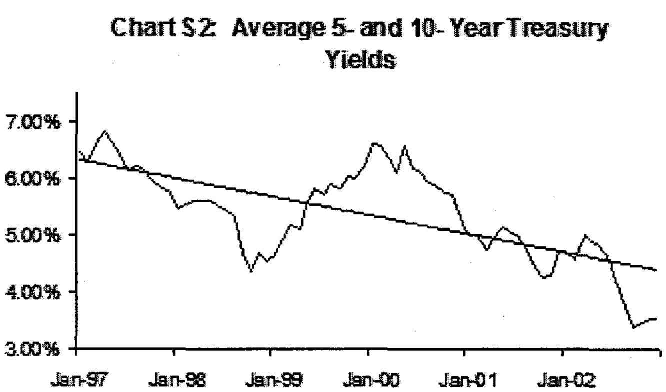
To the extent that dividend growth conveys management's assessment of prospects for future earnings, the sample water companies are not necessarily confident that EPS can

[9] Sharpe, William F. Investments. 3rd edition. Prentice-Hall. Englewood Cliffs, NJ. 1985. p. 419.

grow indefinitely at the inflated rate Dr. Zepp assumes. Therefore, it is imperative to consider DPS growth in combination with other factors.

Q. On page 44 of his rebuttal testimony Dr. Zepp presents his Rebuttal Table 6, which shows that in the years 1997 - 2002, average prices for water utility stocks have increased faster than EPS, DPS and book values. Dr. Zepp draws the conclusion that investors expect more rapid growth in the future, otherwise they would not bid up the price of the stock. (See rebuttal testimony of Thomas M. Zepp. p. 44 at 4 – 9.) Does Staff necessarily agree?

A. No. Staff does not agree that the only reason investors would bid up the price of a stock is because they expect more rapid growth in the future. For example, it is logical to expect investors to bid stock prices up as the return they require for purchasing such stock (i.e. the cost of equity) falls. This is because the price for a security varies inversely with its required return, other things equal. In Section III of Staff's direct testimony I provided Charts 1 and 2 which showed how interest rates and capital costs in general, have declined. Chart S2, shown below, graphs average 5- and 10-year Treasury yields over the same period covered in Dr. Zepp's Rebuttal Table 6 (1997 – 2002):



The decline in interest rates shown in Chart S2 combined with the increase in average prices for water utility stocks reported by Dr. Zepp makes perfect sense; as interest rates, and capital costs in general, have decreased, so has the average cost of equity to the sample water companies.

Q. Does the Gordon, Gordon, and Gould ("GG&G") article cited by Dr. Zepp support his argument that past DPS growth should not be included in a DCF cost of equity analysis?

A. No, it does not. Dr. Zepp uses the GG&G article to support his position to exclude past DPS growth in a constant-growth DCF analysis. (See rebuttal testimony of Thomas M. Zepp. p. 44 at 18 – 26 and p. 45 at 1 – 6.) The GG&G article simply concluded that analysts' forecasts of growth in EPS outperformed past BR (retention) growth, past DPS growth, and past EPS growth during the period of their study. The following quote from the GG&G article gives perspective:

> For our sample of utility shares, [forecasts of earnings growth] performed well, with [past BR growth], [past DPS growth], and *[past EPS growth] a distant fourth.*[10] (emphasis added)

The GG&G article concluded that the worst performer was past EPS growth, not past DPS growth, and that past EPS growth was distant in its inferiority.

Q. How does Staff respond to Dr. Zepp's statement on page 45 of his rebuttal testimony that, to the extent analysts have already taken historical growth into account in their forecasts, Staff's approach double-counts the past? (See rebuttal testimony of Thomas M. Zepp. p. 45 at 12 – 14.)

A. As stated on page 40 of Staff's direct testimony, Staff agrees that professional analysts *may* have considered past growth in their forecasts. However, the appropriate growth rate to use in the DCF formula is the dividend growth rate expected by *investors*, not analysts.

[10] Gordon, David A., Myron J. Gordon, Lawrence I. Gould. "Choice Among Methods of Estimating Share Yield." *The Journal of Portfolio Management.* Spring 1989. p. 54.

Therefore, the reasonable assumption that investors rely, to some extent, on past growth in addition to analysts' forecasts, warrants consideration of both.

Dr. Zepp's Restatement of Staff's DCF Estimates

Q. On pages 46 - 47 of his rebuttal testimony Dr. Zepp attempts to show that past DPS growth and near-term forecasts of DPS growth would not be considered by investors by conducting an ad hoc analysis of Staff's expected dividend yields and past and forecasted DPS growth rates. He calculates constant-growth DCF estimates ranging from 6.0 percent to 7.2 percent. Should the Commission give this portion of Dr. Zepp's rebuttal testimony any weight?

A. No. This portion of Dr. Zepp's rebuttal testimony should be given no weight by the Commission for several reasons. First, Dr. Zepp implicitly assumes that authorized ROEs equal equity costs. This assumption is incorrect. Staff has already addressed the problems associated with assuming authorized ROEs equal equity costs on pages 50 – 51 of its direct testimony. Second, Dr. Zepp relies on forecasts of Baa corporate bond rates. Staff has already explained why the Commission should not rely on interest rate "forecasts" on pages 49 – 50 of its direct testimony. Third, Dr. Zepp again makes the fatal mistake of comparing the rate on Baa corporate bonds to the cost of equity. Staff has already explained why corporate bond yields cannot be used to imply meaningful equity risk premiums on pages 51 – 52 of its direct testimony. Fourth, Dr. Zepp adds Staff's past and forecasted DPS growth rates to the expected dividend yield to arrive at constant-growth DCF cost of equity estimates ranging from 6.0 percent to 7.2 percent. This procedure is inappropriate because Staff does not rely solely on DPS growth in its constant-growth DCF analysis, nor does Staff suggest that rational investors rely solely on DPS growth when pricing stocks. This portion of Dr. Zepp's testimony constitutes a straw man argument and should be given no weight by the Commission.

Q. How does Dr. Zepp modify Staff's multi-stage DCF analysis?

A. On pages 47 – 50 of his rebuttal testimony Dr. Zepp modifies Staff's multi-stage DCF analysis by injecting a supernormal growth stage between the first and second stages of growth. He assumes that investors expect this supernormal growth to occur during years 2007 – 2016.

Q. Are his modifications appropriate?

A. No. His modifications are not appropriate for two reasons. First, Dr. Zepp assumes that investors would use *Value Line*'s projected retention ("br") growth rate to project dividends in 2007 and 2008. This is inappropriate because *Value Line* already projects DPS growth in those years. Investors relying on a multi-stage DCF model would use information concerning DPS growth to the greatest extent possible in the first stage.

Second, Dr. Zepp takes *Value Line*'s projected br growth rate for 2006 – 2008 and misapplies it to years 2009 – 2016. *Value Line* does not project growth for the years 2009 – 2016, and Dr. Zepp's perpetual growth rate does not begin until the year 2017. Therefore, inserting a projected br growth rate for the years 2006 – 2008 into years 2009 – 2016, before starting the perpetual growth rate in 2017, is speculative. The Commission should give no weight to Dr. Zepp's restatement of Staff's multi-stage DCF analysis.

Dr. Zepp's "Risk Premium" Method

Forecasted Interest Rates

Q. Should interest rate "projections" made by professional analysts be relied on to estimate the cost of equity?

A. No. Interest rate projections made by professional analysts should not be relied on for the same reasons average stock prices should not be used to calculate expected dividend yields in a DCF analysis. As stated above, the best forecast of tomorrows yield is simply today's yield. According to the article cited in footnote 26 of Staff's direct testimony, "professional forecasts of financial variables are notoriously unreliable and appear to be getting worse, not better, over time." "The direction of interest rates [bond yields] cannot be predicted any better than by the flip of a coin."[11]

Q. How does Staff respond to Dr. Zepp's testimony and illustration shown on page 20, lines 12 – 20 of his rebuttal testimony, in which he suggests that the relevant rate to determine the cost of equity "when setting tariffs that will not be authorized until 2004" is a forecasted rate?

A. Dr. Zepp's statement is inconsistent with his testimony on page 12 of his rebuttal testimony where he argues for the use of a historical average dividend yield in the DCF formula. Dr. Zepp argues simultaneously for forecasted interest rates in the CAPM and historical prices in the DCF formula. Further, Dr. Zepp's argument ignores the fact that the purpose of Staff's analysis is to estimate the *current* cost of equity to Arizona-American. The Commission may very well make an estimate of the current cost of equity on the day an order is issued in this proceeding. However, the Commission should not rely on a forecasted rate that was likely predicted with no more accuracy than that of a coin toss.

Baa Bond Rates vs. Treasuries

Q. Can corporate bond rates be used to imply meaningful equity risk premiums?

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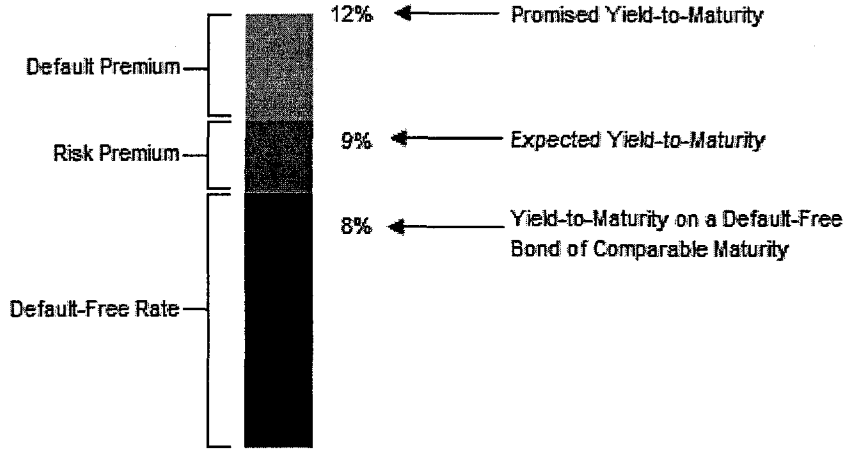
[11] Kihm, Steven G. "The Superiority of Spot Yields in Estimating Cost of Capital." *Public Utilities Fortnightly.* February 1, 1996. pp. 42 – 45.

A. No. Corporate bond rates cannot be used to imply meaningful equity risk premiums because a corporate bond contains some default risk which is diversifiable, therefore, the investor's expected rate of return is lower than the bond's yield to maturity.[12] That is why Professor Booth states that *all risk comparisons should be to default-free government bonds*.[13] As mentioned previously, Dr. Zepp recognizes Professor William Sharpe as an authority. The following diagram is reproduced from Professor Sharpe's text *Investments*:[14]

Figure S1: Yield-to-Maturity for a Risky Bond



As shown in Figure S1, the promised yield-to-maturity is 12 percent. However, due to high default risk the expected yield-to-maturity is only 9 percent. The difference, 300 basis points, is the default premium. The default premium shown in Figure S1 represents that portion of default risk which is diversifiable, or unsystematic. Investors do not require additional return to compensate for unsystematic risk. Professor Sharpe agrees that *expected* returns should be compared to *expected* returns on page 335 of *Investments*:

> As discussed in previous chapters, it is useful to compare the *expected* return of a security with the certain return on a *default-*

[12] Weston, J. Fred, Thomas E. Copeland. Managerial Finance. The Dryden Press. 1986. Chicago. pp. 434 – 435.
[13] Booth. pp. 415 – 425.
[14] Sharpe. 1985 p. 335.

> *free* instrument. In an efficient market the difference will be related to the *relevant* [systematic] risk of the security. For stocks the *expected* holding-period return over a period of a year or less is commonly compared with the yield of a *Treasury bill* of the appropriate maturity.
>
> The traditional approach with bonds contrasts *expected* yield-to-maturity with that of a *default-free* bond of roughly comparable maturity. *Any difference is the bond's risk premium.*[15] (emphasis added)

Consequently, Dr. Zepp's "risk premium" is *not* a risk premium as defined by Professor Sharpe. It is simply the difference between a "promised" yield-to-maturity and some other figure such as accounting/book returns or commission decisions.

Q. On page 22 of his rebuttal testimony Dr. Zepp presents his Rebuttal Table 2, which shows that the spread between Baa corporate bond rates and 10-year Treasury rates during the last two years is 50 percent higher than the average spread from 1982 to 1998. Dr. Zepp states that the higher yield spread today creates a problem. (See rebuttal testimony of Thomas M. Zepp. p. 22 at 21 – 24.) Please comment.

A. Dr. Zepp suggests that the fact that there was a larger spread between Baa corporate bond rates and Treasury rates in the last two years than in the period 1982 – 1998, a cost of equity estimate produced by a risk premium method such as his will be understated. However, the larger spread between Baa corporate bond rates and Treasury rates may logically be due to increased unsystematic default risk for Baa's on average, thus overstating the cost of equity.

Q. On page 23 of his rebuttal testimony Dr. Zepp presents his Rebuttal Table 3, which he claims shows that Baa bond rates are preferred to Treasury rates when making risk premium estimates. What is the analysis shown in his Rebuttal Table 3?

[15] Sharpe. 1985. pp. 335 – 336.

A. In the data supporting his Rebuttal Table 3 Dr. Zepp regresses the 454 commission ROE decisions he used in his second risk premium analysis on (1) Baa corporate bond rates and (2) 10-year Treasury rates, during the period 1982 to 2002. The R^2 of his regressions are .845 and .820 for Baa corporate bonds and 10-year Treasuries, respectively. For the most recent four-year period the R^2 of his regressions are .183 and .089 for Baa corporate bonds and 10-year Treasuries, respectively. Dr. Zepp claims that his results show that Baa corporate bond rates do a better job of explaining the level of equity costs than do 10-year Treasuries.

Q. Can the regression analysis supporting Dr. Zepp's Rebuttal Table 3 be relied on?

A. No. The regression analysis supporting Dr. Zepp's Rebuttal Table 3 cannot be relied on for two reasons. The first reason is related to the way he ran his regression; the second reason is related to the type of regression he ran.

Q. Please explain the first reason Dr. Zepp's analysis should not be relied on.

A. Dr. Zepp's analysis should not be relied on because Staff has concerns with the manner in which he ran his regressions. For example, in some months (December 1982) he regresses as many as 21 commission ROE decisions against the same interest rate. In other months there are simply no data, and most interesting of all; there are no data for the six-year period between October 1983 and January 1990. Dr. Zepp has not explained why this data is missing from his analysis.

On page 23, lines 5 – 6 of his rebuttal testimony Dr. Zepp states that this data is the same data from Table 22 of his direct testimony (his second risk premium analysis). Staff was not aware of this work paper prior to the writing of this testimony. To the extent that the data supporting Dr. Zepp's Rebuttal Table 3 is the same data he relied on in his second risk premium analysis, his use of such data is inefficient at best, and is yet another reason the Commission should not rely on it.

Q. What is the second reason Dr. Zepp's analysis cannot be relied on?

A. The second reason Dr. Zepp's regression cannot be relied on is what is known as positive autocorrelation, which Staff found in his regression. When positive autocorrelation is present, the validity of the regression is questionable.[16]

Q. Even if Dr. Zepp's regression analysis was valid would it prove anything about the relationship between interest rates and the cost of equity?

A. No. This is because his analysis in no way examines the cost of equity. Rather, it considers ROE *decisions* made by various commissions at various points in time in the early 1980s and then again in the more recent period since 1990. The capital markets determine the cost of equity, not state commissions. Further, this Commission has no way of knowing how these other cases were resolved. Allowed returns often reflect various incentives and disincentives put into place by each state commission for various purposes which likely do not, and would not, apply to Arizona-American.

The CAPM

Q. On page 34 of his rebuttal testimony Dr. Zepp describes the CAPM used by Staff and RUCO and presents what he calls a "more general specification" of the CAPM known as the "zero-beta" version. (See rebuttal testimony of Thomas M. Zepp. P. 34 at 3 – 24.) Please comment.

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[16]The difference between the predicted value of the regression line and the actual observation (in this case the ROE decision) is the error, or "residual." Theoretically, residuals should be random. When the residual for one period is followed by a residual of similar magnitude in the subsequent period, the residuals are not random. This situation is called autocorrelation, and the validity of the regression is called into question.

A. The CAPM adopted by Staff and RUCO actually conforms to the original CAPM developed by Professor William Sharpe, John Lintner, and Jan Mossin. It is the version most widely used by companies and it is more popular than any other method of estimating the cost of equity among firms.[17] The "zero-beta" version presented by Dr. Zepp in equation 2 (page 34) of his rebuttal testimony is actually an extended version of the CAPM derived from empirical tests of the original.

Q. What is the zero-beta CAPM?

A. In the zero-beta CAPM, the required return on a zero-beta asset (a portfolio of assets that has no covariability with the market portfolio) (R_z) is used in place of the return on U.S. Treasuries (R_f). The zero-beta CAPM is said to be flatter than the original CAPM, resulting in higher expected returns for low beta stocks and lower expected returns for high beta stocks compared to the original CAPM.

Q. On pages 38 – 39 of his rebuttal testimony Dr. Zepp attempts to apply the findings of the CAPM tests which found the required return on the zero-beta asset to be higher than the Treasury bill rate to Staff's CAPM. Is his restatement appropriate?

A. No. On page 56 (lines 13 – 23) of Staff's direct testimony I explained why the results of those tests cannot be appropriately applied to Staff's CAPM. The restatement of Staff's CAPM presented by Dr. Zepp in his rebuttal testimony should not be relied upon for additional reasons. First, the 476 basis-point premium over intermediate-term Treasury yields used by Dr. Zepp in his restatement of Staff's CAPM was *not* a finding of Fama and MacBeth. Second, the unreasonableness of Dr. Zepp's zero-beta restatement of Staff's CAPM is revealed in his 9.31 percent zero-beta (risk-free) return. Clearly, a risk-

[17] Graham, John R., Campbel R. Harvey. "The Theory and Practice of Corporate Finance: Evidence from the Field." *Journal of Financial Economics*. 60 (2001) pp. 187 – 243.

free rate of 9.31 percent does not appear reasonable when long-term Treasuries yield 5.0 percent and intermediate-term Treasuries yield 3.6 percent.

An appropriate application of the zero-beta version of the CAPM would have to start with an estimate of the *current* required return on the zero-beta asset. The study cited by Dr. Zepp in his restatement of Staff's CAPM was conducted approximately thirty years ago.

Q. On pages 36 – 37 of his rebuttal testimony Dr. Zepp restates Staff's CAPM estimates using analysts' forecasts of long-term Treasury yields. Is Dr. Zepp's restatement of Staff's CAPM using forecasts of long-term Treasuries appropriate?

A. No. First, Dr. Zepp's use of a forecasted Treasury bond yield is inappropriate. On pages 49 – 50 of Staff's direct testimony and previously in this testimony I explained why the Commission should *not* rely on forecasted interest rates. Second, Dr. Zepp's use of a long-term Treasury bond as the risk-free rate (R_f) in the CAPM is contrary to suggestions by financial experts that most investors consider the intermediate time frame (5-10 years) a more appropriate investment horizon.[18] Also, when using the CAPM to estimate the cost of equity to a public utility, it would make more sense that the risk-free rate that is chosen should be an estimate of the rate expected to prevail during the period that rates are in effect. Third, a long-term Treasury bond yield is inappropriate for use in a CAPM for a utility rate proceeding because it includes a risk premium above and beyond expected future interest rates, which R_f represents in the CAPM. This risk premium is called a "liquidity risk premium." If Dr. Zepp's risk-free rate includes a risk premium it cannot be risk-free; and an analyst should not use it in a CAPM analysis. Brealey and Myers describe how a long-term Treasury bond yield can be corrected for use in the CAPM in their text *Principles of Corporate Finance*:

[18] Reilly, Frank K., and Keith C. Brown. *Investment Analysis and Portfolio Management.* 2003. South-Western. Mason, OH. p. 439.

> The risk-free rate could be defined as a long-term Treasury bond yield. If you do this, however, you should subtract the risk premium of Treasury bonds over bills ... This figure could in turn be used as an expected average future r_f in the capital asset pricing model.[19]

Q. Are there other problems with Dr. Zepp's restatement of Staff's CAPM?

A. Yes. Dr. Zepp has updated the R_f in Staff's CAPM but has not updated the current market risk premium ($R_m - R_f$), which has declined as interest rates have increased since Staff's direct testimony.

Q. On page 40 of his rebuttal testimony Dr. Zepp states that the "Oregon [Public Utility Commission] Staff abandoned presenting equity cost estimates based on the CAPM altogether." (See rebuttal testimony of Thomas M. Zepp. p. 40 at 3 – 4.) Is he correct?

A. No. Staff has been in personal contact with the Oregon Public Utility Commission ("PUC") Staff and they have informed me that they have, in fact, *not* abandoned the CAPM, and they have not represented such to any party recently. Therefore, Dr. Zepp's information is incorrect.

Not only do other state commission staff's continue to rely on the CAPM, the CAPM is by far the most popular method of estimating the cost of equity among companies.[20]

Q. On page 40 of his rebuttal testimony Dr. Zepp suggests that his "risk premium model" is preferred to the CAPM and states that it is a simpler and less subjective

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[19] Brealey, Richard. Myers, Stewart C. *Principles of Corporate Finance.* 3rd edition. McGraw-Hill. New York. 1988. p. 184.

[20] Graham, John R., Campbel R. Harvey. "The Theory and Practice of Corporate Finance: Evidence from the Field." *Journal of Financial Economics*. 60 (2001) pp. 187 – 243.

approach than the CAPM. (See rebuttal testimony of Thomas M. Zepp. p. 40 at 5 – 13.) Is he correct?

A. No. The risk premium approach advocated by Dr. Zepp is very subjective and not preferred to the CAPM. Diana Harrington of the University of Virginia discusses such ad hoc methods in her book *Modern Portfolio Theory, The Capital Asset Pricing Model, and Arbitrage Pricing Theory*:

> These models start with the assumption that every holder of a risky investment requires a return that is greater than the return he or she would get from a risk-free security. In other words, the investor receives a premium as compensation for his or her risk. Most risk-premium models calculate the required rate of return by adding to the risk-free rate of return certain premiums for industry risk, operating risk, or financial risk. These calculations remain subjective because the analysts' estimates of business risks are likewise subjective.
>
> The CAPM, by contrast, defines *risk* explicitly as the volatility of an asset's returns relative to the volatility of the market portfolio's returns. The advantage of this precise definition of risk is that risk is the only asset-specific forecast that must be made in the CAPM.[21]

A review of the various ways Dr. Zepp has implemented his risk premium method reveals just how subjective it is. Even if Dr. Zepp had implemented his risk premium method in the manner suggested in the above excerpt and used a default-free Treasury security, it would still be more subjective than the CAPM according to the quote by Professor Harrington. Additionally, the fact that there are six years (November 1983 – December 1989) of data missing from his second risk premium analysis indicates that the data is of poor quality, or it was subjectively omitted.

[21] Harrington, Diana R. *Modern Portfolio Theory, the Capital Asset Pricing Model, and Arbitrage Pricing Theory: A User's Guide*. Prentice-Hall. Englewood Cliffs, NJ. 1987. pp. 18 – 19.

The Appropriate Rate Base to Which the ROR is applied

Q. Should the Commission adopt Dr. Zepp's recommendation to multiply the ROR by the Company's reproduction cost rate base to determine earnings?

A. No. On page 63 (lines 9 – 14) of Staff's direct testimony I explained why applying the market-based ROR to the reproduction cost new rate base ("RCNRB") when the RCNRB is greater then the OCRB provides the Company and its investors with a windfall gain at the expense of Arizona consumers. I further explained in Staff's direct testimony (pages 63 -65) how applying a market-based ROR to a RCNRB that is lower than the OCRB can result in a company expecting to earn *less* than the cost of capital on its investment as well as the inability to maintain credit. Dr. Zepp's recommendation is confiscatory and violates the widely accepted capital attraction standard when the RCNRB is less than the OCRB.[22]

Q. On pages 30 – 31 of his rebuttal testimony Dr. Zepp argues that in Arizona, investors should *not* expect to earn a return on the original dollars invested (OCRB). (See rebuttal testimony of Thomas M. Zepp. P. 30 at 25 – 26.) Rather, he argues that a higher dollar return resulting from an Arizona utility having assets worth more than original cost should be expected. (See rebuttal testimony of Thomas M. Zepp. P. 31 at 5 – 7.) Does available evidence suggest that this is the case?

A. No. Arizona Public Service Company ("APS") filed an application for a rate increase on June 27th, 2003. Staff is currently reviewing that application. Exhibits JMR-S18 and JMR-S19 are APS' Schedule B-2 and B-3 of its application. According to the exhibits, APS' original cost rate base is $3.8 billion and its reconstruction cost new ("RCN") rate base is $6.7 billion. If Dr. Zepp is correct, one should expect Pinnacle West Capital Corp. ("Pinnacle West"), the parent of APS, to have a market-to-book ratio that is substantially higher than other publicly-traded electric utilities that do not operate in Arizona. Schedule

[22] Myers, Stewart C. Spring 1972. p. 80.

JMR-S16 shows the percent of total revenues derived from regulated operations and the October 9, 2003, market-to-book ratio for twenty-nine publicly-traded electric utilities, including Pinnacle West. According to Schedule JMR-S16, on October 9th investors were willing to pay only 1.2 times book value for Pinnacle West common stock, while they were willing pay 1.5 times book value for common stock in the other publicly-traded electric utilities.

Clearly, if investors expected to earn a return on a value of assets that was worth more than original cost due to what Dr. Zepp claims the Arizona Constitution requires, Pinnacle West would not have a market-to-book ratio that is lower than that of other publicly-traded electric companies that do not operate in Arizona. Therefore, evidence suggests that investors *will* receive a windfall gain if Dr. Zepp's recommendation is adopted.

IV. RESPONSE TO THE REBUTTAL TESTIMONY OF DAVID STEPHENSON

Capital Structure and Cost of Debt

Q. On pages 25 – 27 of his rebuttal testimony Mr. Stephenson criticizes Staff for including the Tolleson bonds as debt of the Company and not the "PILAR"[23] agreements in its recommended capital structure and cost of debt. What information did Staff rely on to calculate its recommended capital structure and cost of debt?

A. Staff relied on information provided by Mr. Stephenson in response to Staff data request JMR 8-3. According to the schedule provided by Mr. Stephenson in response to JMR 8-3, the Tolleson bonds were debt of the Company on December 31, 2002. The schedule does not indicate the PILAR agreements as debt of the Company on December 31, 2002. Mr. Stephenson's response to Staff data request JMR 8-3 is included as Exhibit JMR–S20.

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[23] The correct acronym is PILOR or PILR, meaning "payment in lieu of revenue." The PILR debt is related to construction agreements whereby the developer constructs distribution plant and transfers ownership to the utility in exchange for a loan from the developer equal to the cost of construction. In addition, for each lot not receiving permanent water service from the utility, the developer pays to the utility an annual "payment in lieu of revenue."

Q. **Is the information provided by Mr. Stephenson in response to JMR 8-3 consistent with his rebuttal testimony and information he provided in Docket No. W-01303A-03-0572, a financing docket?**

A. No. On August 14, 2003, Arizona-American filed an application for approval to issue $25 million in long-term debt (Docket No. W-01303A-03-0572). In response to Staff data request JHJ 1.2 in that docket (included as Exhibit JMR –S21), Mr. Stephenson provided a schedule showing a different debt structure for the Company on December 31, 2002. The schedule provided in response to JHJ 1.2 indicates the PILAR agreements are debt of the Company. The PILAR agreements appear to be loans developers made to the utility. The Tolleson bonds are not shown on the schedule.

Q. **Is Staff changing its recommended capital structure and cost of debt?**

A. Yes. Staff is changing its recommended capital structure to reflect Mr. Stephenson's rebuttal testimony regarding the Tolleson bonds and PILAR agreements. Staff's updated capital structure consists of 60.1 percent long-term debt and 39.9 percent equity:

Table 5

Capital Source	Percentage
Long-term Debt	60.1%
Common Equity	39.9%

Staff's updated recommended capital structure reflects the debt structure represented to Staff in the Company's response to Staff data request JHJ 1.2 in Docket No. W-01303A-03-0572 (financing case) (See Exhibit JMR S21.)

Staff's updated recommended cost of debt is 4.77 percent, shown in Schedule JMR-S17.

Financial Integrity

Q. **On pages 27 – 32 of his rebuttal testimony Mr. Stephenson responds to Staff's pre-tax interest coverage ratio of 3.2 calculated in column F of Schedule JMR-9 of Staff's direct testimony. On pages 30 – 31 of his rebuttal testimony he presents his Rebuttal Schedule 4, which he claims shows that Staff's recommendations produce a pre-tax interest coverage ratio of 1.16. (See rebuttal testimony of David Stephenson. p. 30 at 22 – 26 and p. 31 at 1 – 2.) Should the Commission give any weight to Mr. Stephenson's calculation?**

A. No. Mr. Stephenson makes his calculation from accounting data and implicitly assumes that the Commission is obligated to provide a dollar return on items other than assets devoted to public service. Therefore, his calculation is inconsistent with a fair rate of return. Staff's recommended rates are designed to provide an opportunity for the Company to earn a fair rate of return on the value of assets devoted to the public benefit and Staff's updated ROR is expected to provide a 3.0 pre-tax interest coverage ratio.

Q. **Can you provide an example of a situation where a utility made substantial investment in assets *not* devoted to public service, therefore resulting in a differential between the pre-tax interest coverage ratio implied by the weighted average cost of capital ("WACC") and the pre-tax interest coverage ratio calculated from accounting data?**

A. Yes. Assume hypothetical utility A has a rate base of $100 and chooses to finance all plant with debt at a cost of 5.0 percent. Utility A wishes to purchase Utility B's assets. Due to reasons related to management self-interest and not public benefit, Utility A pays $200 for Utility B's assets that are only worth $100, resulting in a $100 premium. In Utility A's next rate case the commission allows a return of 5.0 percent on a rate base of $200. Utility A does not, and should not, earn a return on the $100 premium it paid for Utility B's assets even though it financed that extra $100 with debt at a cost of 5.0 percent.

As a result, the interest coverage ratio implied by the WACC will be different than an interest coverage ratio calculated from accounting data, which would presumably include interest payments on the $100 premium paid for Utility B's assets.

Q. Can you provide another example of the fallacy in Mr. Stephenson's argument?

A. Yes. On page 4 of his Rebuttal Schedule 4, Mr. Stephenson calculates a return on equity using the same type of accounting data that he used in calculating his coverage ratio. Stephenson Rebuttal Schedule 4 reports that under the Company's own proposed rates, it will earn a return on equity of only 2.21 percent (page 4). He states that "this return is better than earning no return, as would be the case under Staff's recommendations, but is still well below the returns currently being earned by publicly traded water utilities..." (See rebuttal testimony of David Stephenson. p. 31 at 18 – 21.)

Clearly a return of 2.21 percent is unreasonable for a water utility, as the yield on risk-free intermediate-term Treasury securities is currently 3.6 percent. A well-managed company would certainly not seek rates designed to provide investors with a return lower than the risk free rate, as Mr. Stephenson suggests is the case.

V. RESPONSE TO THE REBUTTAL TESTIMONY OF INTERVENOR WALTER W. MEEK.

Unique Risk

Q. On pages 5 – 6 of his rebuttal testimony Mr. Meek suggests that unique factors affect stock prices. Does Staff agree?

A. Yes. Staff agrees with Mr. Meek that unique factors and events can have an affect on stock prices. However, unique factors have no bearing on market risk, which is what affects the cost of equity. Professor Harrington explains:

> Looking back, we can, of course, see [unique] sources of superior returns or losses. But because these *uncertainties* can be diversified away, they are not relevant to investors' forecasts of the future returns.[24] (emphasis added)

Q. On page 6 of his rebuttal testimony Mr. Meek states that he does not agree with Staff's testimony that "the risk associated with a particular firm is 'eliminated' if securities are purchased in portfolios." (See rebuttal testimony of Walter W. Meek. p. 6 at 11 – 21.) What type of risk is Staff referring to?

A. Staff is referring to unique risk. Unique risk is also known as diversifiable risk, or unsystematic risk.

Q. Can Staff explain how the unique risk of a security can be eliminated through shareholder diversification?

A. Yes. According to modern portfolio theory ("MPT"), investors purchase assets in portfolios, and in doing so reduce the total variation of their returns. The total variation of a portfolio is less than the sum of its parts because in a diversified portfolio of risky assets some returns are high while others are low, offsetting each other. For example, stock A (a suntan lotion company) and stock B (an umbrella company) are both expected to earn 10 percent and have equivalent risk. However, it seems that returns on the two stocks move in exactly opposite directions. When it is sunny, stock A makes unusually good returns but stock B makes unusually poor returns. When it is rainy, stock B makes unusually good returns and stock A makes unusually poor returns. Combining the two stocks in a portfolio allows all risk to be diversified away, even though each of the companies' returns is still quite risky independently. This risk that can be diversified away becomes irrelevant and investors do not require a return on this unique risk. Diversification allows investors to reduce their level of risk exposure for any given level of expected return. The

[24] Harrington. p. 16.

risk that is left is called systematic risk. Systematic risk measures the extent to which a security's returns are correlated with returns in the general market of risky assets.

MPT is a widely accepted concept that gained added fame in 1990 when the Nobel Prize in Economic Sciences was awarded to Harry Markowitz, Merton Miller, and Professor Sharpe for their work on the concept.

Q. On page 6 of his rebuttal testimony Mr. Meek states that his organization and utility companies receive inquiries from analysts and investors about the probable effects of unique risk. Mr. Meek also cites a Citigroup publication on page 8 of his rebuttal testimony and *Value Line* on page 11 of his rebuttal testimony, both of which analyze and rate individual stocks. Would Mr. Meek's organization receive inquiries about unique risk, and would there be demand for the Citigroup and *Value Line* publications if markets were efficient, and investors did not require added return for bearing unique risk?

A. Yes. The fact that Mr. Meek's organization receives inquiries about the effect of unique factors, and the fact that there is demand for the Citigroup and *Value Line* publications are both consistent with the existence of an efficient market, in which investors do not require added return for unique risk. This is because although a market may be reasonably efficient, at any given point in time a particular security may be in disequilibrium. A security in disequilibrium is either "underpriced" or "overpriced." A security is underpriced if its expected return is greater than its equilibrium expected return given its level of systematic risk. A security is overpriced if its expected return is *less* than its equilibrium expected return given its level of systematic risk.[25]

[25] Sharpe, William F., Gordon J. Alexander. Investments. 4th edition. Prentice Hall. Englewood Cliffs, NJ. 1990. p. 221.

Q. Can you provide a simple, real-life example of a security that is in disequilibrium?

A. Yes. Suppose Orange Juice, Inc. gets the majority of its oranges from Florida. Orange Juice, Inc. is publicly traded and its stock price is in equilibrium. Now suppose that investors are unaware that a hurricane is brewing off the coast of Florida (a unique event) that will wipe out Florida's entire crop of oranges. Orange Juice, Inc.'s stock price is now in disequilibrium and is overpriced – the pending hurricane has reduced prospects for future cash-flow growth, but because investors are not aware of the hurricane, its stock price remains at its pre-hurricane level. Thus, Orange Juice, Inc.'s expected return is *less* than the equilibrium expected return given its level of systematic risk. When investors become aware of the hurricane they will sell Orange Juice, Inc. until its price falls to a level where it is again in equilibrium, and its expected return is once again appropriate given its level of systematic risk. Orange Juice, Inc.'s systematic risk never changed throughout the above situation.

Many investors and analysts spend a great deal of time searching for mispriced securities.[26] Some investors may seek information or opinion from organizations such as Mr. Meek's, many others will review the individual company analyses provided by organizations such as Citigroup and *Value Line.*

The market-based models used by Staff to calculate cost of equity estimates for the sample water companies are "equilibrium models." Therefore, Staff's estimate of the cost of equity to the sample water companies is an estimate of the appropriate expected return given their level of systematic risk.

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[26] Sharpe. 1990. p. 221.

Staff's Cost of Equity Estimates are Reasonable from a Common Sense Perspective

Q. On page 10 of his rebuttal testimony Mr. Meek states that "the results produced by Staff's Discounted Cash Flow (DCF) and CAPM studies may pass a theoretical test, but they are suspect from a common sense perspective." (See rebuttal testimony of Walter W. Meek. p. 10 at 25 – 27.) Does Staff agree?

A. No. Staff's updated DCF and CAPM estimates average 8.5 percent. On pages 5 – 6 of Staff's direct testimony I provided information regarding historical returns for average risk securities as well as observational perspective on current capital costs. On page 6 of Staff's direct testimony I reported that Wharton School finance professor Jeremy Siegel published his finding that the average compound and arithmetic returns on U.S. equities have been 8.3 percent and 9.7 percent, respectively, using 199 years of data from 1802 through 2001.[27] One should keep in mind that these returns are actual returns, not expected returns. However, the risk of a regulated water utility, as measured by beta, is significantly below the theoretical beta (1.0) of average-risk securities.

Q. Does evidence suggest that capital costs are low by historical standards?

A. Yes. On page 5 of Staff's direct testimony I presented Chart 2. Chart 2 is updated below as Chart S3. Chart S3 puts interest rates and capital costs in general, into historical perspective. Interest rates have declined significantly in the past twenty years, and are currently at levels comparable to the 1950's and '60's.

[27] Siegel. p. 13.

Chart S3: History of 5- and 10-Year Treasury Yields

According to the CAPM, the cost of equity moves in the same direction as interest rates. Chart S3 suggests that capital costs, including the cost of equity, are quite low by historical standards.

Q. **On page 11 of his rebuttal testimony Mr. Meek testifies that Staff has not explained the difference between the cost of equity estimates derived from market-based models (DCF and CAPM) and "actual returns in the market." (See rebuttal testimony of Walter W. Meek. p. 11 at 8 – 11.) Can Staff explain this difference?**

A. Yes. However, before explaining the difference it should be noted that Mr. Meek's statement is based on an erroneous assumption that "actual returns in the market" are higher than Staff's cost of equity estimates, when they are not. The average market return for the twelve months ending December 31, 2002, was -4.6 percent and 3.2 percent for the sample water companies and sample gas companies, respectively. The difference between a security's expected return and its actual market return is known as its "random error." The expected value of a security's random error is zero.

The Comparable Earnings *Method* and the Comparable Earnings *Standard*

Q. On page 9 of his rebuttal testimony Mr. Meek cites the "comparable earnings standard." (See rebuttal testimony of Walter W. Meek. p. 9 at 9 – 10.) What is the difference between the comparable earnings "standard," and the comparable earnings "method" Staff mentions in its response to the rebuttal testimony of Dr. Zepp?

A. The comparable earnings "standard" was set forth by the Supreme Court in *Hope*. It simply states that the return to the *equity owner* "should be commensurate with returns on investments in other enterprises having corresponding risks."[28] This standard is best met using the DCF and CAPM models. The comparable earnings "method" is the practice of examining past or projected accounting/book returns on equity as a gauge of the cost of equity, rather than relying on market-based models such as the DCF and CAPM.

Q. On page 12 of his rebuttal testimony Mr. Meek uses the comparable earnings method by citing book/accounting returns for the sample water companies and sample gas companies reported by *C. A. Turner Utility Reports*. (See rebuttal testimony of Walter W. Meek. p. 12 at 11 – 28.) Should the Commission rely on the comparable earnings method?

A. No. The Commission should not rely on the comparable earnings method. Staff has already stated in its response to the rebuttal testimony of Dr. Zepp that the sample water companies have an average market-to-book ratio of 2.3 and the sample gas companies have an average market-to-book ratio of 1.7. Therefore, from a theoretical standpoint the sample companies are expected to earn book/accounting returns in excess of their costs of equity. "The economically relevant internal rate of return [cost of equity] will only be approximated by the [book/]accounting rate of return in two cases: one, if the cost of

[28] Myers, Stewart C. "The Application of Finance Theory to Public Utility Rate Cases." *The Bell Journal of Economics and Management Science*. Spring, 1972. p. 61. Federal Power Commission v. Hope Natural Gas Co. 1944.

[equity] is earned in each year; and two, if an average [book/]accounting rate of return is taken over a very long period of time."[29] Even then, the comparable earnings method still ignores current capital market conditions.

Q. Is the comparable earnings method a popular method to estimate the cost of equity?

A. No. Many decades ago the comparable earnings method was a widely used method for estimating the cost equity to a public utility. It has since been supplanted by market-based models developed in corporate finance. The DCF method is the most popular method of estimating the cost of equity in public utility rate cases and the CAPM is the most popular method of estimating the cost of equity among companies.

The application of corporate finance theory to public utility rate cases was set forth over thirty years ago by Professor Stewart Myers of the Massachusetts Institute of Technology. In his now classic article "The Application of Finance Theory to Public Utility Rate Cases" professor Myers explained how the traditional comparable earnings method of examining book/accounting returns of other firms contained serious deficiencies, both in logic and application.[30]

Q. Is the comparable earnings method required in order to satisfy the comparable earnings "standard?"

A. No. The interpretation of the comparable earnings standard suggested by finance theory is the rate of return, defined in terms of anticipated dividends and capital gains investors expect to earn by purchasing shares of comparable risk. This is also called the "cost of equity". Therefore, the DCF method and CAPM both satisfy the comparable earnings standard.

[29] Howe, Keith M., Eugene F. Rasmussen. *Public Utility Economics and Finance*. Prentice-Hall. Englewood Cliffs, NJ. 1982. 98 – 99.
[30] Myers. Pp 58 – 97.

VI. CONCLUSTION

Q. Please summarize Staff's recommendations.

A. Staff recommends the Commission adopt a 9.0 percent ROE, a 4.77 percent cost of debt, and a 6.5 percent rate of return. Staff recommends the Commission give little weight to the rebuttal testimonies of Company witnesses Dr. Thomas Zepp and David Stephenson, and intervenor Walter Meek.

Q. Does this conclude Staff's surrebuttal testimony?

A. Yes.

Arizona-American Water Company
Capital Structures of Sample Water Companies
31-Mar-03

	[A]	[B]	[C]	[D]	[E]
Line No.	Company	Ticker Symbol	Long-Term Debt	Common Equity	Total
1	American States Water	AWR	50.8%	49.2%	100.0%
2	California Water	CWT	56.3%	43.7%	100.0%
3	Connecticut Water Services	CTWS	45.5%	54.5%	100.0%
4	Middlesex Water	MSEX	52.2%	47.8%	100.0%
5	Philadelphia Suburban	PSC	53.6%	46.4%	100.0%
6	SJW Corp.	SJW	40.8%	59.2%	100.0%
7	Average		49.9%	50.1%	100.0%
8					
9	Arizona-American Water Company		60.1%	39.9%	100.0%
10					
11					
12					
13					
14					
15					
16	Source: 08/01/2003 Value Line				

Schedule JMR-S1

Arizona-American Water Company
Growth in Earnings and Dividends
Sample Water Companies

Line No.	[A] Company	[B] 10-Year Earnings EPS	[C] Projected Earnings EPS	[D] 10-Year Dividends DPS	[E] Projected Dividends DPS
1	American States Water	1.5%	6.7%	1.2%	2.4%
2	California Water	1.4%	9.3%	1.9%	1.0%
3	Connecticut Water Services	3.0%	No Projection	1.3%	No Projection
4	Middlesex Water	1.9%	No Projection	2.9%	No Projection
5	Philadelphia Suburban	8.7%	10.0%	5.0%	5.3%
6	SJW Corp.	2.6%	No Projection	2.6%	No Projection
7					
8	Average	3.2%	8.7%	2.5%	2.9%
9					
10					
11					
12	Source: *Value Line*				

Schedule JMR-S2

Arizona-American Water Company
Calculation of Intrinsic Growth
Sample Water Companies

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]
Line No.	Company	10-Year Retention Growth br	Projected Retention Growth br	Book Value BV	Market Price MP	v 1-[(BV)/(MP)]	s	Stock Financing Growth vs	10-Year Intrinsic Growth br + vs	Projected Intrinsic Growth br + vs
1	American States Water	2.6%	5.0%	14.67	23.5	0.38	2.6%	1.0%	3.6%	6.0%
2	California Water	2.8%	4.0%	13.69	25.7	0.47	0.2%	0.1%	3.0%	4.1%
3	Connecticut Water Servic	2.9%	No Projection	9.89	27.2	0.64	1.5%	1.0%	3.8%	No Projection
4	Middlesex Water	1.8%	No Projection	10.19	26.0	0.61	5.8%	3.5%	5.3%	No Projection
5	Philadelphia Suburban	3.7%	8.0%	7.47	24.1	0.69	7.3%	5.0%	8.8%	13.0%
6	SJW Corp.	4.9%	No Projection	54.15	87.1	0.38	0.0%	0.0%	4.9%	No Projection
7										
8	Average	3.1%	5.7%				2.9%		4.9%	7.7%
9										
10										
11										
12										
13										
14										
15										
16	Book value per Schedule JMR-S5									
17	Market Price per Schedule JMR-S5									
18	s value = Funds raised from the sale of stock as a fraction of existing common equity over previous seven years.									

Schedule JMR-S3

Arizona-American Water Company
Calculation of Expected Infinite Annual Growth in Dividends
Sample Water Companies

Line No.	[A]	[B] g
1	10-Year EPS Growth	3.2%
2	Projected EPS Growth	8.7%
3	10-Year DPS Growth	2.5%
4	Projected DPS Growth	2.9%
5	10-Year Intrinsic Growth	4.9%
6	Projected Intrinsic Growth	7.7%
7		
8	Average	4.98%
9		
10		
11		
12	Per Schedule JMR-2 and Schedule JMR-3	

Schedule JMR-S4

Arizona-American Water Company
Selected Financial Data of Sample Water Companies

	[A]	[B]	[C]	[D]	[E]	[F]	[G]
Line No.	Company	Symbol	Spot Price 9/25/03	Book Value 9/25/03	Mkt To Book	*Value Line* Beta	Raw Beta
1	American States Water	AWR	23.53	14.67	1.6	0.65	0.45
2	California Water	CWT	25.68	13.69	1.9	0.60	0.37
3	Connecticut Water Services	CTWS	27.20	9.89	2.8	0.60	0.37
4	Middlesex Water	MSEX	25.96	10.19	2.5	0.55	0.30
5	Philadelphia Suburban	PSC	24.06	7.47	3.2	0.70	0.52
6	SJW Corp.	SJW	87.10	54.15	1.6	0.50	0.22
7							
8	Average				2.3	0.60	0.37
9							
10							
11							
12							
13							
14							
15							
16							

Arizona-American Water Company
Multi-Stage DCF Estimates
Sample Water Companies

Line No.	[A]	[B] Current Mkt. Price (P_o)	[C] Projected Dividends[1] (stage 1 growth) (D_t)	[D]	[E]	[F]	[G]	[H] Stage 2 growth[2] (g_n)	[I] Equity Cost Estimate (K)
1			d_1	d_2	d_3	d_4	d_5		
2									
3	American States Water	23.5	0.88	0.91	0.93	0.96	0.99	6.5%	9.8%
4	California Water	25.7	1.12	1.14	1.15	1.17	1.19	6.5%	10.2%
5	Connecticut Water Services	27.2	0.86	0.89	0.92	0.95	0.98	6.5%	9.3%
6	Middlesex Water	26.0	0.89	0.92	0.95	0.98	1.01	6.5%	9.6%
7	Philadelphia Suburban	24.1	0.60	0.63	0.66	0.70	0.74	6.5%	8.9%
8	SJW Corp.	87.1	2.98	3.08	3.18	3.28	3.39	6.5%	9.6%
13									
14								Average	9.6%

$$P_0 = \sum_{t=1}^{n} \frac{D_t}{(1+K)^t} + \frac{D_n(1+g_n)}{K-g_n}\left[\frac{1}{(1+K)}\right]^n$$

Where : P_0 = current stock price
D_t = dividends expected during stage 1
K = cost of equity
n = years of non – constant growth
D_n = dividend expected in year n
g_n = constant rate of growth expected after year n

[1] d_1 (*Value Line* Companies) = "Est'd Div'd next 12 mos." 09/19/2003, *Value Line* Selection & Opinion.
1 d_1 (*VL Small Cap Editoin*) = Forecasted dividend over next twelve months.
[2] Average annual growth in GDP 1929 - 2002 in current dollars. http://www.bea.doc.gov/

Schedule JMR-S6

Arizona-American Water Company
Updated Cost of Equity Estimates
Sample Water Companies

Line	[A]	[B]		[C]		[D]		[E]
No.	**Constant Growth DCF**			D_1/P_0	+	g	=	k
1	Constant Growth DCF Estimate			3.44%	+	4.98%	=	8.4%
2	Multi-Stage DCF Estimate						=	9.6%
3	**Average of DCF Estimates**							9.0%
4								
5	**CAPM Method**	Rf	+	β	x	(Rp)	=	k
6	Historical Market Risk Premium	3.6%	+	0.60	x	7.4%	=	8.0%
7	Current Market Risk Premium	3.6%	+	0.60	x	7.6%	=	8.1%
8	**Average of CAPM Estimates**							8.1%
9								
10								
11						**Average**		8.5%

Arizona-American Water Company
Capital Structure
And Weighted Cost of Capital

	[A]	[B]	[C]	[D]	[E]	[F]
Line No.		Weight (%)	Cost	Weighted Cost	Gross Rev. Conv. Factor	Grossed-Up Cost
1	Long-term Debt	60.09%	4.77%	2.87%	1.00	2.87%
3	Common Equity	39.91%	9.0%	3.59%	1.63	5.86%
4		100.0%		6.5%		8.73%
5						
6			Pre-Tax Interest Coverage [3 ÷ 1]			3.0

Schedule JMR-S8

Arizona-American Water Company
Capital Structures of Sample Gas Companies
2003

Line No.	[A] Company	[B] Ticker Symbol	[C] Long-Term Debt	[D] Common Equity	[E] Total
1	AGL Resources	ATG	53.2%	46.8%	100.0%
2	Atmos Energy	ATO	55.3%	44.7%	100.0%
3	Cascade Natural Gas	CGC	58.0%	42.0%	100.0%
4	Laclede Group	LG	50.8%	49.2%	100.0%
5	Nicor Inc.	GAS	34.6%	65.4%	100.0%
6	Northwest Natural Gas	NWN	48.0%	52.0%	100.0%
7	Peoples Energy	PGL	47.1%	52.9%	100.0%
8	Piedmont Natural Gas	PNY	42.4%	57.6%	100.0%
9	Southwest Gas	SWX	63.9%	36.1%	100.0%
10	WGL Holdings	WGL	44.0%	56.0%	100.0%
11	Average		49.7%	50.3%	100.0%
12					
13					
14					
15					
16					
17					
18					
19	Source: Value Line				

Schedule JMR-S9

Arizona-American Water Company
Growth in Earnings and Dividends
Sample Gas Companies

	[A]	[B]	[C]	[D]	[E]
Line No.	Company	10-Year Earnings EPS	Projected Earnings EPS	10-Year Dividends DPS	Projected Dividends DPS
1	AGL Resources	4.9%	4.3%	0.5%	0.7%
2	Atmos Energy	4.1%	8.7%	3.6%	2.3%
3	Cascade Natural Gas	6.0%	9.1%	0.3%	0.4%
4	Laclede Group	0.1%	10.0%	1.1%	0.4%
5	Nicor Inc.	4.1%	4.0%	4.5%	3.4%
6	Northwest Natural Gas	8.2%	7.7%	0.9%	1.1%
7	Peoples Energy	3.1%	5.7%	1.6%	1.6%
8	Piedmont Natural Gas	3.0%	10.0%	5.8%	3.5%
9	Southwest Gas	3.7%	12.1%	1.6%	0.0%
10	WGL Holdings	-1.1%	16.1%	1.7%	0.9%
11					
12	Average	3.6%	8.8%	2.2%	1.4%
13					
14					
15					
16	Source: *Value Line*				

Schedule JMR-S10

Arizona-American Water Company
Calculation of Intrinsic Growth
Sample Gas Companies

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]
Line No.	Company	10-Year Retention Growth br	Projected Retention Growth br	Book Value BV	Market Price MP	v 1-[(BV)/(MP)]	s	Stock Financing Growth vs	10-Year Intrinsic Growth br + vs	Projected Intrinsic Growth br + vs
1	AGL Resources	3.8%	6.0%	14.01	28.1	0.50	1.5%	0.8%	4.5%	6.8%
2	Atmos Energy	3.6%	5.5%	15.55	24.0	0.35	4.5%	1.6%	5.2%	7.1%
3	Cascade Natural Gas	2.6%	5.5%	11.01	19.2	0.43	3.8%	1.6%	4.2%	7.1%
4	Laclede Group	2.1%	3.0%	15.75	26.7	0.41	3.6%	1.5%	3.5%	4.5%
5	Nicor Inc.	6.7%	6.5%	17.21	35.7	0.52	0.0%	0.0%	6.7%	6.5%
6	Northwest Natural Gas	3.4%	4.5%	19.11	29.0	0.34	5.1%	1.7%	5.1%	6.2%
7	Peoples Energy	3.3%	4.5%	23.33	41.9	0.44	0.4%	0.2%	3.5%	4.7%
8	Piedmont Natural Gas	3.5%	4.5%	19.31	38.8	0.50	4.8%	2.4%	5.8%	6.9%
9	Southwest Gas	2.8%	5.5%	18.56	22.6	0.18	6.9%	1.2%	4.0%	6.7%
10	WGL Holdings	3.3%	5.0%	16.64	27.3	0.39	3.0%	1.2%	4.5%	6.2%
11										
12	Average	3.5%	5.1%				3.37%		4.7%	6.3%
13										
14										
15										
16										
17										
18										
19										
20										
21										
22	s value = Funds raised from the sale of stock as a fraction of existing common equity over previous seven years.									

Schedule JMR-S11

Arizona-American Water Company
Calculation of Expected Infinite Annual Growth in Dividends
Sample Gas Companies

Line No.	[A]	[B] g
1	10-Year EPS Growth	3.6%
2	Projected EPS Growth	8.8%
3	10-Year DPS Growth	2.2%
4	Projected DPS Growth	1.4%
5	10-Year Intrinsic Growth	4.7%
6	Projected Intrinsic Growth	6.3%
7		
8	Average	4.5%
9		
10		
11		
12	Per Schedule *JMR-S11* and Schedule *JMR-S10*	

Schedule JMR-S12

Arizona-American Water Company
Selected Financial Data of Sample Gas Companies

	[A]	[B]	[C]	[D]	[E]	[F]	[G]
Line No.	**Company**	**Symbol**	**Spot Price 9/25/03**	**Book Value 9/25/03**	**Mkt To Book**	***Value Line* Beta**	**Raw Beta**
1	AGL Resources	ATG	28.14	14.0	2.0	0.75	0.60
2	Atmos Energy	ATO	23.97	15.5	1.5	0.65	0.45
3	Cascade Natural Gas	CGC	19.19	11.0	1.7	0.65	0.45
4	Laclede Group	LG	26.71	15.8	1.7	0.65	0.45
5	Nicor Inc.	GAS	35.65	17.2	2.1	0.95	0.90
6	Northwest Natural Gas	NWN	29.00	19.1	1.5	0.60	0.37
7	Peoples Energy	PGL	41.90	23.3	1.8	0.75	0.60
8	Piedmont Natural Gas	PNY	38.82	19.3	2.0	0.70	0.52
9	Southwest Gas	SWX	22.62	18.6	1.2	0.70	0.52
10	WGL Holdings	WGL	27.30	16.6	1.6	0.65	0.45
11							
12	Average				1.7	0.71	0.53
13							
14							
15							
16							
17							
18							
19							
20							

Schedule JMR-S13

Arizona-American Water Company
Multi-Stage DCF Estimates
Sample Gas Companies

Line No.	[A]	[B] Current Mkt. Price (P_o)	[C] Projected Dividends[1] (stage 1 growth) (D_t)	[D]	[E]	[F]	[G]	[H] Stage 2 growth[2] (g_n)	[I] Equity Cost Estimate (K)
1			d_1	d_2	d_3	d_4	d_5		
2									
3	AGL Resources	28.1	1.12	1.12	1.12	1.12	1.12	6.5%	9.7%
4	Atmos Energy	24.0	1.22	1.25	1.29	1.32	1.36	6.5%	11.0%
5	Cascade Natural Gas	19.2	0.96	0.97	0.97	0.98	0.99	6.5%	10.6%
6	Laclede Group	26.7	1.34	1.35	1.36	1.37	1.38	6.5%	10.6%
7	Nicor Inc.	35.7	1.86	1.93	2.01	2.09	2.17	6.5%	11.3%
8	Northwest Natural Gas	29.0	1.27	1.29	1.30	1.32	1.34	6.5%	10.2%
9	Peoples Energy	41.9	2.12	2.15	2.17	2.20	2.23	6.5%	10.7%
10	Piedmont Natural Gas	38.8	1.66	1.72	1.77	1.83	1.90	6.5%	10.4%
11	Southwest Gas	22.6	0.82	0.82	0.82	0.82	0.82	6.5%	9.4%
12	WGL Holdings	27.3	1.28	1.29	1.31	1.32	1.33	6.5%	10.4%
13									
14								Average	10.4%

$$P_0 = \sum_{t=1}^{n} \frac{D_t}{(1+K)^t} + \frac{D_n(1+g_n)}{K-g_n}\left[\frac{1}{(1+K)}\right]^n$$

Where : P_0 = current stock price
D_t = dividends expected during stage 1
K = cost of equity
n = years of non – constant growth
D_n = dividend expected in year n
g_n = constant rate of growth expected after year n

[1] d_1 = "Est'd Div'd next 12 mos." 09/19/2003 *Value Line* Selection & Opinion.
[2] Average annual growth in GDP 1929 - 2002 in current dollars. http://www.bea.doc.gov/bea/dn/nipaweb/TableViewFixed.asp#Mid

Arizona-American Water Company
Updated Cost of Equity Estimates
Sample Gas Companies

Line No.	[A]	[B]		[C]		[D]		[E]
	Constant Growth DCF			D_1/P_0	+	g	=	k
1	Constant Growth DCF Estimate			4.63%	+	4.50%	=	9.1%
2	Multi-Stage DCF Estimate						=	10.4%
3	**Average of DCF Estimates**							**9.8%**
4								
5	**CAPM Method**	Rf	+	β	x	(Rp)	=	k
6	Historical Market Risk Premium	3.6%	+	0.71	x	7.4%	=	8.8%
7	Current Market Risk Premium	3.6%	+	0.71	x	7.6%	=	8.9%
8	**Average of CAPM Estimates**							**8.8%**
9								
10								
11						**Average**		**9.3%**

Schedule JMR-S15

Arizona-American Water Company
Market-to-Book Ratio of Pulbicly-Traded Electric Companies

Line No.	[A] Company	[B] Symbol	[C] Percent Regulated Revenues	[D] Spot Price 10/9/03	[E] Book Value 10/9/03	[F] Mkt To Book
1	Alliant Energy	LNT	84%	23.08	20.09	1.1
2	Ameren	AEE	100%	43.50	26.03	1.7
3	Avista	AVA	91%	16.12	15.08	1.1
4	Cent. Vermont P.S.	CV	100%	23.65	17.04	1.4
5	CH Energy Group	CHG	77%	44.90	29.53	1.5
6	Cleco Corporation	CNL	79%	16.81	10.71	1.6
7	Con. Edison	ED	94%	40.73	28.62	1.4
8	DPL Inc.	DPL	99%	18.35	6.74	2.7
9	DTE Energy Co.	DTE	81%	36.25	28.10	1.3
10	Empire District	EDE	96%	22.30	14.87	1.5
11	Energy East Corp.	EAS	90%	23.44	17.53	1.3
12	Entergy Corp.	ETR	82%	54.08	37.57	1.4
13	FPL Group, Inc.	FPL	89%	64.48	37.50	1.7
14	Green Mtn. Power	GMP	100%	22.35	19.39	1.2
15	Hawaiian Electric	HE	76%	44.13	29.41	1.5
16	IDACORP, Inc.	IDA	94%	26.70	22.69	1.2
17	MGE Energy Inc.	MGEE	100%	31.33	14.84	2.1
18	Northeast Utilities	NU	78%	18.86	17.58	1.1
19	NSTAR	NST	96%	46.90	25.50	1.8
20	Otter Tail Corp.	OTTR	76%	27.24	12.67	2.1
21	**Pinnacle West**	**PNW**	**76%**	**35.64**	**30.18**	**1.2**
22	PNM Resources	PNM	100%	28.71	25.71	1.1
23	Progress Energy	PGN	96%	44.49	30.10	1.5
24	Puget Energy, Inc.	PSD	94%	22.90	16.60	1.4
25	Sempra Energy	SRE	76%	28.80	15.07	1.9
26	Southern Co.	SO	97%	29.60	12.73	2.3
27	Westar Energy	WR	80%	18.98	14.39	1.3
28	Wisconsin Energy	WEC	76%	31.28	19.76	1.6
29	WPS Resources	WPS	80%	41.82	26.77	1.6
30						
31	Average					1.5

Arizona-American Water Company
Docket No. WS-0103A-02-0867 *et seq*.

Schedule JMR-S17

Arizona-American Water Company
Cost of Long-Term Debt
31-Dec-02

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]	[O]
						Principal Amount				Net to Company		Cost of Money to Company			
Line No.	Interest Rate	Description	Issue Date	Maturity Date	Original Life	Original Issue	Currently Outstanding	Issuance Expenses	Redemption Expenses	Total Dollar Amount	Per $100 Principal Amount	(Bond Table Basis)	Annual Debt Service Cost	B. P. Difference	Coupon Cost of Debt
1	7.120%	L-T Senior Notes	12/01/99	08/15/08	9	$4,500,000	$4,500,000	$41,022	$0	$4,458,978	99.088%	7.260%	$326,700	13.98	$320,400
2	4.920%	L-T Promissory Note	11/06/01	11/06/06	5	$3,500,000	$3,500,000	$391	$0	$3,499,609	99.989%	4.923%	$172,305	0.26	$172,200
3	4.920%	L-T Promissory Note	01/14/02	11/05/06	5	$154,948,119	$154,948,119	$87,147	$0	$154,860,972	99.944%	4.933%	$7,643,591	1.28	$7,623,447
4	1.280%	L-T Note - Maricopa	09/01/97	09/01/28	31	$10,635,000	$10,635,000	$31,039	$0	$10,603,961	99.708%	1.291%	$137,298	1.14	$136,128
5	6.260%	PILAR - Monterey	09/01/93	09/01/12	19	$120,000	$76,000	$0	$0	$120,000	100.000%	6.260%	$4,758	0	$4,758
6	5.760%	PILAR - Estates at Lincoln	12/30/93	08/01/13	20	$55,000	$39,000	$0	$0	$55,000	100.000%	5.760%	$2,246	0	$2,246
7	7.180%	PILAR - Rosalee Cactus	06/26/95	08/01/25	30	$81,000	$64,000	$0	$0	$81,000	100.000%	7.180%	$4,595	0	$4,595
8	7.180%	PILAR - TO Development	07/26/95	08/01/15	20	$69,000	$55,000	$0	$0	$69,000	100.000%	7.180%	$3,949	0	$3,949
9															
10	Sum:					$173,908,119	$173,817,119	$159,599		$173,748,520			$8,295,442		$8,267,724
11															
12															
13	Cost of Debt:	4.77%													4.76%
14															
15															
16															
17															
18															
19															
20															
21															
22	Source:														
23	Rebuttal testimony of David Stephenson. Pp. 25 - 27 and the Company's response to Staff data request JHJ 1.2 in Docket No. W-01303A-03-0572.														

Schedule JMR-S17

ARIZONA PUBLIC SERVICE COMPANY
Original Cost Rate Base
Pro Forma Adjustments
(Dollars in Thousands)

		(1)		(2)		(3)	
		Actual at End of Test Year 12/31/2002 (a)		PWEC Units		Remove Regulatory Assets Amortized under Prior Settlement	
Line No.	Description	Total Co. (A)	ACC (B)	Total Co. (C)	ACC (D)	Total Co. (E)	ACC (F)
1	Gross Utility Plant in Service	$ 8,486,874	$ 8,203,305	$ 1,021,886	$ 1,015,393	$ -	$ -
2	Less: Accumulated Depreciation & Amort.	3,542,547	3,405,509	73,395	73,045	-	-
3	Net Utility Plant in Service	4,944,327	4,797,796	948,491	942,348	-	-
4	Less: Total Deductions	1,614,838	1,589,887	53,382	53,111	(41,080)	(41,080)
5	Total Additions	563,800	556,554	-	-	(104,000)	(104,000)
6	Total Rate Base	$ 3,893,289	$ 3,764,463	$ 895,109	$ 889,237	$ (62,920)	$ (62,920)

(2) Adjustment to Test Year rate base to include the Pinnacle West Energy Units including West Phoenix Combined Cycle Unit No. 4, West Phoenix Combined Cycle No. 5, Redhawk Combined Cycle No. 1, Redhawk Combined Cycle No. 2 and Saguaro Combustion Turbine No. 3

(3) Adjustment to Test Year rate base to exclude certain net regulatory assets which, pursuant to the terms of the 1999 Settlement Agreement, will be fully amortized by June 30, 2004

Exhibit JMR-S18

ARIZONA PUBLIC SERVICE COMPANY
RCND Cost Rate Base
Pro Forma Adjustments
(Dollars in Thousands)

		(1)		(2)		(3)	
		Actual at End of Test Year 12/31/2002 (a)		PWEC Units		Remove Regulator, Assets Amortized under Prior Settlement	
Line No.	Description	Total Co (A)	ACC (B)	Total Co. (C)	ACC (D)	Total Co. (E)	ACC (F)
1	Gross Utility Plant in Service	$ 13,596,926	$ 13,142,617	$ 1,023,292	$ 1,016,790	$ -	$ -
2	Less Accumulated Depreciation & Amort.	5,677,664	5,458,032	74,288	73,934	-	-
3	Net Utility Plant in Service	7,919,262	7,684,585	949,004	942,856	-	
4	Less Total Deductions	1,614,838	1,589,887	53,382	53,111	(41,080)	(41,080)
5	Total Additions	563,800	556,554	-	-	(104,000)	(104,000)
6	Total Rate Base	$ 6,868,224	$ 6,651,252	$ 895,622	$ 889,745	$ (62,920)	$ (62,920)

(2) Adjustment to Test Year rate base to include the Pinnacle West Energy Units including West Phoenix Combined Cycle Unit No. 4, West Phoenix Combined Cycle No. 5, Redhawk Combined Cycle No. 1, Redhawk Combined Cycle No. 2 and Saguaro Combustion Turbine No. 3.

(3) Adjustment to Test Year rate base to exclude certain net regulatory assets which, pursuant to the terms of the 1999 Settlement Agreement, will be fully amortized by June 30, 2004

Exhibit JMR-S19

ARIZONA-AMERICAN WATER COMPANY
2003 GENERAL RATE CASE
DOCKET NOS. WS-01303A-02-0867, 0868, 0869, 0870, and 0908
RESPONSE TO DATA REQUEST NO. JMR 8-3

Response provided by: David P. Stephenson

Title: Director of Rates & Planning

Company Name: American Water Works Service Company
Address: 303 H Street, Suite 250
Chula Vista, CA 91910

Company Response Number: 8-3

Q. Please provide a schedule showing the following information regarding the December 31, 2002, balance of long-term debt for Arizona-American Water Company:

a) Description of loan or bond issuance.
b) The interest rate.
c) The issue date.
d) The maturity date.
e) The original amount issued.
f) The principal amount outstanding.
g) Issuance cost (not expensed).
h) Redemption expenses.

A. Please see the attached schedule.

ARIZONA-AMERICAN WATER COMPANY

DATA REQUEST

Data Requests JMR 8-3: December 31, 2002 balance of Long-Term Debt

Item	Description of loan or Bond Issuance (a)	Interest Rate (b)	Issue Date (c)	Maturity Date (d)	Original Amount Issued (e)	Principal Amount Outstanding (f)	Issuance Cost not expensed (g)	Redemption Expenses (h)
1	L-T Senior Notes	7.12%	12/1/99	8/15/08	$4,500,000	$4,500,000	41,022	N/A
2	L-T Promissory Note	4.92%	11/6/01	11/6/06	$3,500,000	$3,500,000	391	N/A
3	L-T Promissory Note	4.92%	1/14/02	11/6/06	$154,948,119	$154,948,119	87,147	N/A
4	L-T Note - Maricopa	Variable*	9/1/97	9/1/28	$10,635,000	$10,635,000	31,039	N/A
5	L-T Note - Tolleson	Variable**	5/4/98	5/1/15	$8,560,000	$8,560,000	26,668	N/A
				TOTAL	$182,143,119	$182,143,119		

* 2002 rate between 2.37% and 1.73%.
** 2002 rate between 2:37% and 1.6%.

Exhibit JMR-S20
Page 2 of 2

Exhibit JMR-S21
Page 1 of 2

Response provided by: Dave Stephenson

Title: Assistant Treasurer

Company Name: Arizona-American Water Company
Address: 303 H. Street
Chula Vista, California 90910

Company Response Number: JHJ-1.2

JHJ 1.2 Please provide a complete schedule of existing debt for applicant to include date of advance, amount, interest rate, maturity, required repayment terms, and lender.

Response: Please see attachment JHJ 1.2 on the enclosed disk.

ARIZONA-AMERICAN WATER COMPANY

DATA REQUEST

Data Requests JMR 8-3: December 31, 2002 balance of Long-Term Debt ($1,000's)

Item	Description of loan or Bond Issuance (a)	Interest Rate (b)	Issue Date (c)	Maturity Date (d)	Original Amount Issued (e)	Principal Amount Outstanding (f)	Issuance Cost not expensed (g)	Redemption Expenses (h)
1	L-T Senior Notes	7.12%	12/1/1999	8/15/2008	$4,500	$4,500	41	N/A
2	L-T Promissory Note	4.92%	11/6/2001	11/6/2006	$3,500	$3,500	0	N/A
3	L-T Promissory Note	4.92%	1/14/2002	11/6/2006	$154,948	$154,948	81	N/A
4	L-T Note - Maricopa	Variable*	9/1/1997	9/1/2028	$10,635	$10,635	2	N/A
5	PILAR - Monterey Homes	6.26%	9/1/1993	9/1/2012	$120	$76	0	N/A
6	PILAR - Estates at Lincoln	5.76%	12/30/1993	8/1/2013	$55	$39	0	N/A
7	PILAR - Rosalee Cactus	7.18%	6/26/1995	8/1/2015	$81	$64	0	N/A
8	PILAR - TO Development	7.18%	7/26/1995	8/1/2015	$69	$55	0	N/A
				TOTAL	$173,908	$173,817		

* 2002 rate between 2.37% and 1.73%.
** 2002 rate between 2.37% and 1.6%.

Exhibit JMR-S21
Page 2 of 2

SCOTT, JR.

BEFORE THE ARIZONA CORPORATION COMMISSION

MARC SPITZER
Chairman
WILLIAM A. MUNDELL
Commissioner
JEFF HATCH-MILLER
Commissioner
MIKE GLEASON
Commissioner
KRISTIN K. MAYES
Commissioner

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, INC., AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THERON FOR UTILITY SERVICE BY ITS SUN CITY WEST WATER AND WASTEWATER DISTRICTS, SUN CITY WATER AND WASTEWATER DISTRICTS, MOHAVE AND HAVASU WATER DISTRICTS, AGUA FRIA AND ANTHEM WATER AND WASTEWATER DISTRICTS, AND TUBAC WATER DISTRICT	DOCKET NOS. WS-01303A-02-0867 WS-01303A-02-0868 W-01303A-02-0869 WS-01303A-02-0870 W-01303A-02-0908

SURREBUTTAL
TESTIMONY
OF

MARLIN SCOTT, JR.

UTILTIES ENGINEER

UTILTIES DIVISION
ARIZONA CORPORATION COMMISSION

OCTOBER 31, 2003

TABLE OF CONTENTS

EXECUTIVE SUMMARY
ARIZONA-AMERICAN WATER COMPANY
DOCKET NOS. WS-01303A-02-0867, *et al.*

(1) Staff accepts the following Reproduction Cost New ("RCN") values for the various Arizona-American districts:

District	RCN Value (dollars) (land & intangibles not trended)
Sun City Water	81,526,331
Sun City Wastewater	41,107,539
Sun City West Water	40,335,226
Sun City West Wastewater	54,552,306
Agua Fria	58,598,675
Anthem Water	42,788,201
Anthem Wastewater	24,000,160
Tubac Water	3,099,558
Mohave Water	31,855,608
Havasu Water	2,742,969
TOTAL:	380,606,574

(2) The results of the Company's Cost of Service Studies (Schedules G-1 to G-7) for the water districts as presented in the Rebuttal Testimony of Mr. Ronald L. Kozoman could be considered and used as a guide for rate design in this proceeding.

INTRODUCTION

Q. Please identify the purpose and sponsorship of this testimony?

A. The purpose is to present a surrebuttal response on behalf of members of the Engineering Staff of the Utilities Division of the Arizona Corporation Commission to the rebuttal testimony provided by various Arizona-American Water Company (herein "Arizona-American" or "Company") witnesses.

Q. Did you consult with the other Staff Engineers in preparation of your surrebuttal testimony?

A. Yes. I developed my testimony after consulting with John A. Chelus, Dorothy M. Hains and Lyndon R. Hammon, all of whom filed direct testimony in this rate proceeding on September 5, 2003. John A. Chelus had filed direct testimony regarding the Sun City West water and wastewater districts. Dorothy M. Hains filed direct testimony regarding the Sun City water and wastewater districts. Lyndon R. Hammon had filed direct testimony regarding the Agua Fria water as well as Anthem water and wastewater districts. I had filed direct testimony regarding the Tubac, Havasu, and Mohave water districts.

Q. Does this Surrebuttal Testimony accurately reflect the views and recommendations of all the Staff Engineers in this rate proceeding?

A. Yes it does. The testimony presented here attests to the view of all Staff Engineers involved in this rate proceeding. The figures presented here are the results of each Staff Engineer's findings concerning the water and wastewater districts listed above.

Q. What is the scope of this surrebuttal testimony?

A. This surrebuttal testimony will focus on the Reproduction Cost New ("RCN") Analysis, Cost of Service Studies, and other incidental additions, clarifications, or corrections to the individual direct testimony of the Engineering Staff. Engineering Staff did not attempt to address every issue raised by the Arizona-American, and silence by the Engineering Staff on any issue or recommendation made by Arizona-American should not be taken as the Engineering Staff's acceptance of such issue or recommendation.

REPRODUCTION COST NEW ANALYSIS

Q. Could you please summarize the problems found with the Company's Reproduction Cost New Analysis ("RCN Study") discussed in each Staff Engineer's Direct Testimonies.

A. Yes. All of the Staff Engineer's identified several problems in the RCN Studies done by the Company for each of the water and wastewater districts. These problems included the following:

1. The fact that the Az-Am RCN were not "valuation studies" but were merely "asset listings."
2. The fact that some plant items had incomplete descriptions and quantities.
3. The fact that the Handy-Whitman factors were not used properly.
4. The fact that all plant items were trended using the Handy-Whitman Indexes.
5. The fact that items such as Organization, Franchises and Land costs were trended when they should not have been.
6. The fact that Az-Am added corporate labor and overhead to the asset items in an unorganized fashion.
7. The fact that contributed plant was not identified and removed from rate base.

Due to the fact that many of these problems existed for all of the water and wastewater districts, Staff believed that the RCN values in the Company's direct testimony should not be accepted for any of the water and wastewater districts.

Q. Did you and the other Staff Engineers review the Company's Rebuttal Testimony concerning RCN?

A. Yes. All of us reviewed the rebuttal testimonies of Thomas Bourassa and William M. Stout. These were the Company witnesses that discussed the RCN Study.

Q. Did the Company address the identified problems to Engineering Staff's satisfaction?

A. Yes, the Company has addressed the identified problems to the satisfaction of Engineering Staff. Engineering Staff now believes that the adjustments performed by the Company in its rebuttal testimony make the RCN Study a true "valuation study." The Company's RCN values reflect the proper use of specific cost indices and proper use of the Handy-Whitman index and removed unidentified items and items not used and useful. In addition, items such as Organization, Franchises and Land costs were not trended in the Company's RCN values, but were accepted at original costs. In short, the major problems in the RCN values presented by the Company in its direct testimonies have been corrected in its rebuttal testimony.

Q. Mr. Stout, in his rebuttal testimony at page 6, starting on line 8, discusses "Staff's RCN studies." Did Staff develop an RCN Study for this case?

A. No. What Mr. Stout is referring to is a series of figures developed by Engineering Staff when analyzing the Company's original RCN values in its direct testimony. These figures sought to serve as a basis for evaluating the impact of correcting some of the major deficiencies in the Company's analysis. However, these figures were not an "RCN study" as described by Mr. Stout because the figures still contained a number of the short-comings and were much more of an asset listing than a true RCN study. The Company did use Engineering Staff's figures as the basis for developing the RCN Study presented in its rebuttal testimonies.

Q. Does the Engineering Staff now accept the revised RCN Study presented in Arizona-American's Rebuttal Testimony?

A. Yes, the Company has addressed the problems delineated above to the satisfaction of Engineering Staff. Engineering Staff accepts those RCN values presented in Bourassa Rebuttal Exhibit 9. These RCN values are:

District	RCN Value ($) (Land and Intangibles not trended)
Sun City Water	81,526,331
Sun City Wastewater	41,107,539
Sun City West Water	40,335,226
Sun City West Wastewater	54,552,306
Agua Fria Water	58,598,675
Anthem Water	42,788,201
Anthem Wastewater	24,000,160
Tubac Water	3,099,558
Mohave Water	31,855,608
Havasu Water	2,742,969
TOTAL:	380,606,574

As stated above, the problems identified by Engineering Staff in the Company's RCN Study in its Direct Testimony are absent in these values. Given that any RCN study is going to have limits as to how precisely the RCN values can be derived, the RCN Study provided by the Company in its Rebuttal Testimony is acceptable to Engineering Staff.

Q. Does the Engineering Staff recommend the use of this RCN Study for the purpose of setting fair values in this rate case?

A. The acceptance of any values for the Reproduction New Cost study does not constitute an endorsement of any particular use for those values in setting the fair value rate base or for the determination of any revenue requirement. In the past, any particular use of RCN values has not been an Engineering function and the decision of how to use RCN values is made by the revenue requirement witness.

In addition, Engineering Staff does not endorse the Company's present RCN study as the sole and best methodology in future rate cases.

COST OF SERVICE STUDIES

Q. Did Arizona-American prepare and present Cost of Service Studies ("COSS") in its Rebuttal Testimony?

A. Yes, the Company submitted COSS for all the water districts and none for the wastewater districts.

Q. Could you please explain what a COSS is?

A. In simple terms, a COSS is a determination of cost-causer by customer class; i.e., how much it costs a utility to provide its service to each customer class. The reason for determining the costs incurred by a utility to serve each customer class is to assist in allocating the revenue requirement for each customer class.

For each utility, there are several generally accepted methods of conducting a COSS. There is no one "correct" COSS method, but rather a range of reasonable alternatives. This is not to suggest that COSS are arbitrary; some allocations are clearly more reasonable than others. This is the reason a COSS should be used only as a general guide and as one of several considerations in designing rates.

Q. Did you review these COSS?

A. Yes. I was able to perform a cursory review of the Company's COSS. However, I was not able to conduct as thorough a review of the COSS as I would have liked or as would be required to fully indorse the COSS as proper due to lack of time.

Q. Was developing rate design part of your review assignment?

A. No. Rate design should not be confused with COSS. A COSS is the allocation of costs to each customer class. Rate design is basically the allocation of revenues to each customer class. The COSS is only one of many factors that are considered when determining the appropriate allocation of revenues. Once the revenue allocation is completed, then specific rates are designed to collect those revenues.

Although the Company submitted a rate design in Schedules G-8 and G-9 for each water district, I did not review that portion of the COSS. Staff's rate design witness is Mr. Dennis Rogers.

Q. Please describe the process you used in reviewing these COSS.

A. Since the Company used Staff's proposed plant values, expenses, and rates of return from Staff's direct testimony, my review process was in three steps. First, I verified that the rate base and expense numbers used in the COSS matched those in Staff's direct testimony. Second, I reviewed the cost allocations used by the Company to determine whether these amounts were appropriate. Finally, I conducted a quick review of the COSS itself to gain an understanding of how the Company had set up this study and how it worked.

Q. Did you have sufficient time to conduct a thorough review of these COSS?

A. No. My review process mainly consisted of verification of the use of Staff's numbers and appropriateness of the cost allocations. A full review would consist of a complete understanding of exactly how the COSS was set up and how it worked.

Q. Based on your quick review, what are your conclusions with regard to these COSS?

A. The Company used plant values, expenses, and rates of return from Staff's direct testimony. In some cases, the Company recomputed revenues that showed slight differences by using Staff's bill count revenues. The cost allocations used by the Company appear to be appropriate. For these reasons, the Company's conclusions in the COSS as presented in the Rebuttal Testimony of Mr. Ronald L. Kozoman, could be considered and used as a guide for rate design in this proceeding but again as simply one element that could be considered in addressing rate design issues. In short, while I was not able to verify as proper every single function of the COSS, based on my cursory review, the COSS appears appropriate.

Q. Does this conclude the surrebuttal testimony of the Engineering Staff?

A. Yes it does.

SUN CITY WEST WATER

ARIZONA-AMERICAN WATER COMPANY, INC. - SUN CITY WEST WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-1

SURREBUTTAL REVENUE REQUIREMENT

LINE NO.	DESCRIPTION	[A] STAFF RCND VALUE	[B] STAFF ORIGINAL COST	[C] STAFF FAIR VALUE
1	Adjusted Rate Base	$ 15,314,756	$ 11,971,281	$ 13,643,018
2	Adjusted Operating Income/(Loss)	$ 559,457	$ 559,457	$ 559,457
3	Current Rate of Return (L2 / L1)	3.65%	4.67%	4.10%
4	Required Rate of Return	5.0%	6.5%	5.7%
5	Required Operating Income (L4 x L1)	$ 773,345	$ 773,345	$ 773,345
6	Operating Income Deficiency/(Excess) (L5 - L2)	$ 213,888	$ 213,888	$ 213,888
7	Gross Revenue Conversion Factor	1.62863	1.62863	1.62863
8	Required Revenue Increase/(Decrease) (L7 x L6)	$ 348,346	$ 348,346	$ 348,346
9	Adjusted Test Year Revenue	$ 3,380,774	$ 3,380,774	$ 3,380,774
10	Proposed Annual Revenue (L8 + L9)	$ 3,729,120	$ 3,729,120	$ 3,729,120
11	Required Increase/Decrease in Revenue (%)	10.30%	10.30%	10.30%
12	Rate of Return on Common Equity (%)	9.0%	9.0%	9.0%

References:

Columns [A], [B], & [C]: Staff Surrebuttal Schedules AII-1, DWC-2, DWC-3, & JMR-S8

ARIZONA-AMERICAN WATER COMPANY, INC. - SUN CITY WEST WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-2

SURREBUTTAL GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	[A]	[B]	[C]	[D]
	Calculation of Gross Revenue Conversion Factor:				
1	Billings	100.0000%			
2	Uncollecible Factor (Line 11)	0.0000%			
3	Revenues (L1 - L2)	100.0000%			
4	Combined Federal and State Tax Rate (Line 17)	38.5989%			
5	Subtotal (L3 - L4)	61.4011%			
6	Revenue Conversion Factor (L1 / L5)	1.628635			
	Calculation of Uncollecttible Factor:				
7	Unity	100.0000%			
8	Combined Federal and State Tax Rate (Line 17)	38.5989%			
9	One Minus Combined Income Tax Rate (L7 - L8)	61.4011%			
10	Uncollectible Rate	0.0000%			
11	Uncollectible Factor (L9 x L10)	0.0000%			
	Calculation of Effective Tax Rate:				
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%			
13	Arizona State Income Tax Rate	6.9680%			
14	Federal Taxable Income (L12 - L13)	93.0320%			
15	Applicable Federal Income Tax Rate (Line 40)	34.0000%			
16	Effective Federal Income Tax Rate (L14 x L15)	31.6309%			
17	Combined Federal and State Income Tax Rate (L13 + L16)	38.5989%			
18	Required Operating Income (Schedule DWC-1, Col. [B], Line 5)	$ 773,345			
19	Adjusted Test Year Operating Income (Loss) (Sch. AII-1, Col. [C], Line 28)	$ 559,457			
20	Required Increase in Operating Income (L18 - L19)		$ 213,888		
21	Income Taxes on Recommended Revenue (Col. [D], L39)	$ 270,168			
22	Income Taxes on Test Year Revenue (Col. [B], L39)	$ 135,710			
23	Required Increase in Revenue to Provide for Income Taxes (L21 - L22)		$ 134,458		
24	Recommended Revenue Requirement (Schedule DWC-1, Col. [B], Line 10)	$ 3,729,120			
25	Uncollectible Rate (Line 10)	0.0000%			
26	Uncollectible Expense on Recommended Revenue (L24 x L25)	$ -			
27	Adjusted Test Year Uncollectible Expense	$ -			
28	Required Increase in Revenue to Provide for Uncollectible Exp. (L26 - L27)		$ -		
29	Total Required Increase in Revenue (L20 + L23 + L28)		$ 348,346		
	Calculation of Income Tax:	Test Year		STAFF Recommended	
30	Revenue (Schedule AII-1, Col. [C], Line 5 & Sch. DWC-1, Col. [B], Line 10)	$ 3,380,774		$ 3,729,120	
31	Operating Expenses Excluding Income Taxes	$ 2,685,607		$ 2,685,607	
32	Synchronized Interest (L43)	$ 343,576		$ 343,576	
33	Arizona Taxable Income (L30 - L31 - L32)	$ 351,591		$ 699,937	
34	Arizona State Income Tax Rate	6.9680%		6.9680%	
35	Arizona Income Tax (L33 x L34)		$ 24,499		$ 48,772
36	Federal Taxable Income (L33 - L35)	$ 327,092		$ 651,165	
37	Federal Income Tax Rate	34.0000%		34.0000%	
38	Federal Income Tax (L36 x L37)		$ 111,211		$ 221,396
39	Combined Federal and State Income Tax (L35 + L38)		$ 135,710		$ 270,168
40	Applicable Federal Income Tax Rate (Col. [D], L38 - Col. [B], L38) / (Col. [C], L36 - Col. [A], L36)				34.0000%
	Calculation of Interest Synchronization:				
41	Rate Base (Schedule DWC-3, Col. [C], Line 17)	$ 11,971,281			
42	Weighted Average Cost of Debt	2.87%			
43	Synchronized Interest (L41 x L42)	$ 343,576			

ARIZONA-AMERICAN WATER COMPANY, INC. - SUN CITY WEST WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-3

SURREBUTTAL RATE BASE - ORIGINAL COST

LINE NO.		[A] COMPANY AS FILED	[B] STAFF ADJUSTMENTS	ADJ	[C] STAFF AS ADJUSTED
1	Plant in Service	$ 31,153,379	$ 237,000	A	$ 31,390,379
2	Less: Accumulated Depreciation	6,211,024	84,111	B	6,295,135
3	Net Plant in Service	$ 24,942,355	$ 152,889		$ 25,095,244
	LESS:				
4	Contributions in Aid of Construction (CIAC)	$ -	$ -		$ -
5	Less: Accumulated Amortization	-	-		-
6	Net CIAC	971,578	-		971,578
7	Advances in Aid of Construction (AIAC)	12,151,160	-		12,151,160
8	Customer Deposits	-	-		-
9	Meter Advances	1,225	-		1,225
10	Deferred Income Tax Credits	-	-		-
	ADD:				
11	Cash Working Capital	-	-		-
12	Prepayments	-	-		-
13	Supplies Inventory	-	-		-
14	Projected Capital Expenditures	-	-		-
15	Deferred Debits	-	-		-
16	Citizens Acquisition Adjustment	8,164,652	(8,164,652)	C	-
17	Original Cost Rate Base	$ 19,983,044	$ (8,011,763)		$ 11,971,281

Adjustments:
A. Per plant adjustments on Surrebuttal Schedule DWC-4
B. Per accumulated depreciation adjustments on Surrebuttal Schedule DWC-4
C. Per acquisition adjustment on Surrebuttal Schedule DWC-4

References:
Column [A]: Company Schedule B-1
Column [B]: Staff Surrebuttal Schedule DWC-4
Column [C]: Column [A] + Column [B]

ARIZONA-AMERICAN WATER COMPANY, INC. - SUN CITY WEST WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-4

SURREBUTTAL SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS

LINE NO.	ACCT. NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] Plant-not used ADJ #1	[C] Plant-unidentified ADJ #2	[D] Plant Mis-Posted ADJ #3	[E] Plant Prev. Dec. ADJ #4	[F] Post-TY Pl. ADJ #5	[G] AFUDC Adj. ADJ #6	[H] Acquisition Adj ADJ #7	[I] STAFF ADJUSTED
		PLANT IN SERVICE:				Leave Blank	Leave Blank				
1		Intangible									
2	301.00	Organization	$ 20,086	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 20,086
3	302.00	Franchises	1,588	-	-	-	-	-	-	-	1,588
4	303.00	Miscellaneous Intangibles	-	-	-	-	-	-	-	-	-
5		Subtotal Intangible	21,674	-	-	-	-	-	-	-	21,674
6											
7		Source of Supply									
8	310.00	Land & Land Rights	11,651	-	-	-	-	-	-	-	11,651
9	311.00	Structures & Improvements	357,725	-	-	-	-	8,366	-	-	366,091
10	312.00	Collecting & Impounding Reservoirs	-	-	-	-	-	-	-	-	-
11	313.00	Lakes, Rivers, Other Intakes	-	-	-	-	-	-	-	-	-
12	314.00	Wells and Springs	1,370,011	-	-	-	-	(62,960)	-	-	1,307,051
13		Subtotal Source of Supply	1,739,387	-	-	-	-	(54,594)	-	-	1,684,793
14											
15		Pumping									
16	320.00	Land & Land Rights	44,957	-	-	-	-	-	-	-	44,957
17	321.00	Structures & Improvements	231,439	-	-	-	-	-	-	-	231,439
18	323.00	Other Power Production	-	-	-	-	-	-	-	-	-
19	325.00	Electric Pumping Equipment	5,030,298	-	(11,175)	-	-	(2,335)	-	-	5,016,788
20	326.00	Diesel Pumping Equipment	4,505	-	-	-	-	-	-	-	4,505
21	328.10	Gas Engine Pumping Equipment	1,764	-	-	-	-	-	-	-	1,764
22		Subtotal Pumping	5,312,963	-	(11,175)	-	-	(2,335)	-	-	5,299,453
23											
24		Water Treatment									
25	330.00	Land & Land Rights	-	-	-	-	-	-	-	-	-
26	331.00	Structures & Improvements	38,357	-	-	-	-	-	-	-	38,357
27	332.00	Water Treatment Equipment	149,687	-	-	-	-	463	-	-	150,150
28		Subtotal Water Treatment	188,044	-	-	-	-	463	-	-	188,507
29											
30		Transmission & Distribution									
31	340.00	Land & Land Rights	-	-	-	-	-	-	-	-	-
32	341.00	Structures & Improvements	-	-	-	-	-	-	-	-	-
33	342.00	Distribution Reservoirs & Standpipes	798,143	-	-	-	-	(28,209)	-	-	769,934
34	343.00	Transmission & Distribution	11,777,852	-	(6,343)	-	-	(20,621)	-	-	11,750,888
35	344.00	Fire Mains	169	-	-	-	-	-	-	-	169
36	345.00	Services	6,622,166	-	(1,767)	-	-	-	-	-	6,620,399
37	346.00	Meters	1,678,135	-	-	-	-	-	-	-	1,678,135
38	348.00	Hydrants	1,682,898	-	-	-	-	3,530	-	-	1,686,428
39	349.00	Other Transmission & Distribution	-	-	-	-	-	-	-	-	-
40		Subtotal Transmission & Distribu.	22,559,363	-	(8,110)	-	-	(45,300)	-	-	22,505,953
41											
42		General									
43	389.00	Land & Land Rights	817	-	-	-	-	-	-	-	817
44	390.00	Structures & Improvements	560,392	-	-	-	-	-	-	-	560,392
45	391.00	Office Furniture and Equipment	286,228	-	-	-	-	(17,194)	-	-	269,034
46	391.10	Computer Equipment	317,767	(99,055)	-	-	-	-	-	-	218,712
47	392.00	Transportation Equipment	318,346	-	-	-	-	39,911	-	-	358,257
48	393.00	Stores Equipment	4,807	-	-	-	-	-	-	-	4,807
49	394.00	Tools, Shop, & Garage Equipment	68,778	-	-	-	-	-	-	-	68,778
50	395.00	Laboratory Equipment	21,787	-	-	-	-	-	-	-	21,787
51	396.00	Power Operated Equipment	20,133	-	-	-	-	-	-	-	20,133
52	397.00	Communication Equipment	118,526	-	-	-	-	2,849	-	-	121,375
53	398.00	Miscellaneous Equipment	46,365	-	(458)	-	-	-	-	-	45,907
54		Subtotal General	1,763,946	(99,055)	(458)	-	-	25,566	-	-	1,689,999
55											
56		Add:									
57											
58		Less:									
59		Youngtown Plant*	-	-	-	-	-	-	-	-	-
60		AFUDC Adjustment 3/95**	(431,998)	-	-	-	-	-	431,998	-	-
61		Total Plant in Service	$ 31,153,379	$ (99,055)	$ (19,743)	$ -	$ -	$ (76,200)	$ 431,998	$ -	$ 31,390,379
62		Less: Accumulated Depreciation	6,211,024	6,820	1,750	-	-	-	92,681	-	6,295,135
63		Net Plant in Service (L59 - L 60)	$ 24,942,355	$ (92,235)	$ (17,993)	$ -	$ -	$ (76,200)	$ 339,317	$ -	$ 25,095,244
64											
65		*LESS:*									
66		Contributions in Aid of Construction (CIAC)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
67		Less: Accumulated Amortization	-	-	-	-	-	-	-	-	-
68		Net CIAC (L25 - L26)	971,578	-	-	-	-	-	-	-	971,578
69		Advances in Aid of Construction (AIAC)	12,151,160	-	-	-	-	-	-	-	12,151,160
70		Customer Deposits	-	-	-	-	-	-	-	-	-
71		Meter Advances	1,225	-	-	-	-	-	-	-	1,225
72		Deferred Income Tax Credits	-	-	-	-	-	-	-	-	-
73											
74		*ADD:*									
75		Cash Working Capital Allowance	-	-	-	-	-	-	-	-	-
76		Prepayments	-	-	-	-	-	-	-	-	-
77		Supplies Inventory	-	-	-	-	-	-	-	-	-
78		Projected Capital Expenditures	-	-	-	-	-	-	-	-	-
79		Deferred Debits	-	-	-	-	-	-	-	-	-
80		Citizens Acquisition Adjustment	8,164,652	-	-	-	-	-	-	(8,164,652)	-
81		Original Cost Rate Base	$ 19,983,044	$ (92,235)	$ (17,993)	$ -	$ -	$ (76,200)	$ 339,317	$ (8,164,652)	$ 11,971,281

ADJ #		References:
1	Plant - not used & useful	Per Staff Engineering Reports
2	Plant - unidentified	Per Staff Engineering Reports
3	Plant - mis-posted	Per Company Response to Staff Data Request BKB 26-3
4	Plant - removed by previous decision	Per Decision No. 60172
5	Post-Test Year Plant	Per Company Response to Staff Data Request DWC 12-2
6	Remove AFUDC Adj. 3/95	Per Company Response to Staff Data Request DWC 6-10 Amended
7	Remove Acquisition Adjustment	Per Carlson Direct Testimony

ARIZONA-AMERICAN WATER COMPANY, INC. - SUN CITY WEST WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

SCHEDULE AII-1

SURREBUTTAL OPERATING INCOME STATEMENT - TEST YEAR AND STAFF PROPOSED

LINE NO.	DESCRIPTION	[A] COMPANY TEST YEAR AS FILED	[B] STAFF TEST YEAR ADJUSTMENTS	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF PROPOSED CHANGES	[E] STAFF RECOMMENDED
1	*REVENUES:*					
2	Metered Water Sales	$ 3,343,134	$ -	$ 3,343,134	$ 348,346	$ 3,691,480
3	Su Water Sales - Unmetered	-	-	-	-	-
4	Other Operating Revenue	37,640	-	37,640	-	37,640
5	Total Operating Revenues	$ 3,380,774	$ -	$ 3,380,774	$ 348,346	$ 3,729,120
6						
7	*OPERATING EXPENSES:*					
8	Salaries & Wages	$ 455,889	$ (63,865)	$ 392,024	$ -	$ 392,024
9	Purchased Water	-	-	-	-	-
10	Purchased Pumping Power	585,941	327	586,268	-	586,268
11	Chemicals	20,407	500	20,907	-	20,907
12	Repairs & Maintenance	170,058	(21)	170,037	-	170,037
13	Office Supplies & Expense	190,041	(156,942)	33,099	-	33,099
14	Outside Services	32,432	41,482	73,914	-	73,914
15	Service Company Charges	515,886	(515,886)	-	-	-
16	Water Testing	6,069	-	6,069	-	6,069
17	Rents	14,134	-	14,134	-	14,134
18	Transportation Expense	-	-	-	-	-
19	Insurance - General Liability	28,990	11,113	40,103	-	40,103
20	Insurance - Health and Life	-	-	-	-	-
21	Regulatory Comm. Exp. - Rate Case	22,313	-	22,313	-	22,313
22	Miscellaneous Operating Expense	148,620	277,480	426,100	-	426,100
23	Depreciation Expense	750,150	4,117	754,267	-	754,267
24	Taxes Other Than Income	28,072	(23,308)	4,764	-	4,764
25	Property Taxes	148,220	(6,611)	141,609	-	141,609
26	Income Tax	(97,736)	233,446	135,710	134,458	270,168
27						
28	Total Operating Expenses	$ 3,019,486	$ (198,169)	$ 2,821,317	$ 134,458	$ 2,955,775
29	Operating Income (Loss)	$ 361,288	$ 198,169	$ 559,457	$ 213,888	$ 773,345

References:
Column [A]: Company Schedule C-1
Column [B]: Surrebuttal Schedule AII-2
Column [C]: Column [A] + Column [B]
Column [D]: Surrebuttal Schedules DWC-1 and DWC-2
Column [E]: Column [C] + Column [D]

ARIZONA-AMERICAN WATER COMPANY, INC. - SUN CITY WEST WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

SCHEDULE AII-2

SURREBUTTAL SUMMARY OF OPERATING INCOME STATEMENT ADJUSTMENTS - TEST YEAR

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJ #1	[C] ADJ #2	[D] ADJ #3	[E] ADJ #4	[F] ADJ #5	[G] ADJ #6	[H] ADJ #7	[I] ADJ #8	[J] STAFF ADJUSTED
1	*REVENUES:*										
2	Metered Water Sales	$ 3,343,134	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,343,134
3	Water Sales - Unmetered	-	-	-	-	-	-	-	-	-	-
4	Other Operating Revenue	37,640	-	-	-	-	-	-	-	-	37,640.0
5	*Total Operating Revenues*	$ 3,380,774	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,380,774
6											
7	*OPERATING EXPENSES:*										
8	Salaries & Wages	$ 455,889	$ -	$ -	$ (108,156)	$ 392,024	$ (347,733)	$ -	$ -	$ -	$ 392,024
9	Purchased Water	-	-	-	-	-	-	-	-	-	$ -
10	Purchased Pumping Power	585,941	327	-	-	-	-	-	-	-	$ 586,268
11	Chemicals	20,407	500	-	-	-	-	-	-	-	$ 20,907
12	Repairs & Maintenance	170,058	(21)	-	-	-	-	-	-	-	$ 170,037
13	Office Supplies & Expense	190,041	5,921	-	(162,863)	-	-	-	-	-	$ 33,099
14	Outside Services	32,432	41,482	-	-	-	-	-	-	-	$ 73,914
15	Service Company Charges	515,886	-	(515,886)	-	-	-	-	-	-	$ -
16	Water Testing	6,069	-	-	-	-	-	-	-	-	$ 6,069
17	Rents	14,134	-	-	-	-	-	-	-	-	$ 14,134
18	Transportation Expense	-	-	-	-	-	-	-	-	-	$ -
19	Insurance - General Liability	28,990	39,463	-	(28,350)	-	-	-	-	-	$ 40,103
20	Insurance -Health and Life	-	-	-	-	-	-	-	-	-	$ -
21	Regulatory Comm. Exp. - Rate Case	22,313	-	-	-	-	-	-	-	-	$ 22,313
22	Miscellaneous Operating Expense	148,620	278,579	-	(1,099)	-	-	-	-	-	$ 426,100
23	Depreciation Expense	750,150	-	-	-	-	-	4,117	-	-	$ 754,267
24	Taxes Other Than Income	28,072	-	-	-	4,764	(28,072)	-	-	-	$ 4,764
25	Property Taxes	148,220	-	-	-	-	-	-	(6,611)	-	$ 141,609
26	Income Tax	(97,736)	-	-	-	-	-	-	-	233,446	$ 135,710
27											
28	Total Operating Expenses	$ 3,019,486	$ 366,251	$ (515,886)	$ (300,468)	$ 396,788	$ (375,805)	$ 4,117	$ (6,611)	$ 233,446	$ 2,821,317
29	Operating Income (Loss)	$ 361,288	$ (366,251)	$ 515,886	$ 300,468	$ (396,788)	$ 375,805	$ (4,117)	$ 6,611	$ (233,446)	$ 559,457

ADJ #		References:
1	Citizens, Corporate Costs Allocation	Schedule AII-3
2	Service Company Charges	Schedule AII-4
3	Projected additional expenses	Schedule AII-5
4	Test Year Salaries, Wages & Related Expenses	Schedule AII-6
5	Projected Salaries, Wages & Related Expenses	Schedule AII-7
6	Depreciation Expense	Schedule AII-8
7	Property Taxes	Schedule AII-9
8	Income Taxes	Schedule AII-10

SUN CITY WEST
WASTEWATER

ARIZONA-AMERICAN WATER COMPANY, INC. - SUN CITY WEST WASTEWATER | Schedule DWC-1
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

SURREBUTTAL REVENUE REQUIREMENT

LINE NO.	DESCRIPTION		[A] STAFF RCND VALUE		[B] STAFF ORIGINAL COST		[C] STAFF FAIR VALUE
1	Adjusted Rate Base	$	12,222,469	$	8,916,017	$	10,569,243
2	Adjusted Operating Income/(Loss)	$	(96,489)	$	(96,489)	$	(96,489)
3	Current Rate of Return (L2 / L1)		-0.79%		-1.08%		-0.91%
4	Required Rate of Return		4.7%		6.5%		5.4%
5	Required Operating Income (L4 x L1)	$	575,975	$	575,975	$	575,975
6	Operating Income Deficiency/(Excess) (L5 - L2)	$	672,464	$	672,464	$	672,464
7	Gross Revenue Conversion Factor		1.62863		1.62863		1.62863
8	Required Revenue Increase/(Decrease) (L7 x L6)	$	1,095,198	$	1,095,198	$	1,095,198
9	Adjusted Test Year Revenue	$	3,535,680	$	3,535,680	$	3,535,680
10	Proposed Annual Revenue (L8 + L9)	$	4,630,878	$	4,630,878	$	4,630,878
11	Required Increase/Decrease in Revenue (%)		30.98%		30.98%		30.98%
12	Rate of Return on Common Equity (%)		9.0%		9.0%		9.0%

References:

Columns [A], [B], & [C]: Staff Surrebuttal Schedules AII-1, DWC-2, DWC-3, & JMR-S8

ARIZONA-AMERICAN WATER COMPANY, INC. - SUN CITY WEST WASTEWATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-2

SUREBUTTAL GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	[A]	[B]	[C]	[D]
	Calculation of Gross Revenue Conversion Factor:				
1	Billings	100.0000%			
2	Uncollecible Factor (Line 11)	0.0000%			
3	Revenues (L1 - L2)	100.0000%			
4	Combined Federal and State Tax Rate (Line 17)	38.5989%			
5	Subtotal (L3 - L4)	61.4011%			
6	Revenue Conversion Factor (L1 / L5)	1.628635			
	Calculation of Uncollecttible Factor:				
7	Unity	100.0000%			
8	Combined Federal and State Tax Rate (Line 17)	38.5989%			
9	One Minus Combined Income Tax Rate (L7 - L8)	61.4011%			
10	Uncollectible Rate	0.0000%			
11	Uncollectible Factor (L9 x L10)	0.0000%			
	Calculation of Effective Tax Rate:				
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%			
13	Arizona State Income Tax Rate	6.9680%			
14	Federal Taxable Income (L12 - L13)	93.0320%			
15	Applicable Federal Income Tax Rate (Line 40)	34.0000%			
16	Effective Federal Income Tax Rate (L14 x L15)	31.6309%			
17	Combined Federal and State Income Tax Rate (L13 + L16)	38.5989%			
18	Required Operating Income (Schedule DWC-1, Col. [B], Line 5)	$ 575,975			
19	Adjusted Test Year Operating Income (Loss) (Sch. AII-1, Col. [C], Line 28)	$ (96,489)			
20	Required Increase in Operating Income (L18 - L19)		$ 672,464		
21	Income Taxes on Recommended Revenue (Col. [D], L39)	$ 201,217			
22	Income Taxes on Test Year Revenue (Col. [B], L39)	$ (221,517)			
23	Required Increase in Revenue to Provide for Income Taxes (L21 - L22)		$ 422,734		
24	Recommended Revenue Requirement (Schedule DWC-1, Col. [B], Line 10)	$ 4,630,878			
25	Uncollectible Rate (Line 10)	0.0000%			
26	Uncollectible Expense on Recommended Revenue (L24 x L25)	$ -			
27	Adjusted Test Year Uncollectible Expense	$ -			
28	Required Increase in Revenue to Provide for Uncollectible Exp. (L26 - L27)		$ -		
29	Total Required Increase in Revenue (L20 + L23 + L28)		$ 1,095,198		
	Calculation of Income Tax:	Test Year		STAFF Recommended	
30	Revenue (Schedule AII-1, Col. [C], Line 5 & Sch. DWC-1, Col. [B], Line 10)	$ 3,535,680		$ 4,630,878	
31	Operating Expenses Excluding Income Taxes	$ 3,853,686		$ 3,853,686	
32	Synchronized Interest (L43)	$ 255,890		$ 255,890	
33	Arizona Taxable Income (L30 - L31 - L32)	$ (573,896)		$ 521,302	
34	Arizona State Income Tax Rate	6.9680%		6.9680%	
35	Arizona Income Tax (L33 x L34)		$ (39,989)		$ 36,324
36	Federal Taxable Income (L33 - L35)	$ (533,907)		$ 484,978	
37	Federal Income Tax Rate	34.0000%		34.0000%	
38	Federal Income Tax (L36 x L37)		$ (181,528)		$ 164,892
39	Combined Federal and State Income Tax (L35 + L38)		$ (221,517)		$ 201,217
40	Applicable Federal Income Tax Rate (Col. [D], L38 - Col. [B], L38) / (Col. [C], L36 - Col. [A], L36)				34.0000%
	Calculation of Interest Synchronization:				
41	Rate Base (Schedule DWC-3, Col. [C], Line 17)	$ 8,916,017			
42	Weighted Average Cost of Debt	2.87%			
43	Synchronized Interest (L41 x L42)	$ 255,890			

ARIZONA-AMERICAN WATER COMPANY, INC. - SUN CITY WEST WASTEWATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-3

SURREBUTTAL RATE BASE - ORIGINAL COST

LINE NO.		[A] COMPANY AS FILED	[B] STAFF ADJUSTMENTS	ADJ	[C] STAFF AS ADJUSTED
1	Plant in Service	$ 39,101,814	$ (74,372)	A	$ 39,027,442
2	Less: Accumulated Depreciation	14,290,245	(140,996)	B	14,149,249
3	Net Plant in Service	$ 24,811,569	$ 66,624		$ 24,878,193
	LESS:				
4	Contributions in Aid of Construction (CIAC)	$ -	$ -		$ -
5	Less: Accumulated Amortization	-	-		-
6	Net CIAC	1,458,672	-		1,458,672
7	Advances in Aid of Construction (AIAC)	14,502,979	-		14,502,979
8	Customer Deposits	525	-		525
9	Meter Advances	-	-		-
10	Deferred Income Tax Credits	-	-		-
	ADD:				
11	Cash Working Capital	-	-		-
12	Prepayments	-	-		-
13	Supplies Inventory	-	-		-
14	Projected Capital Expenditures	-	-		-
15	Deferred Debits	-	-		-
16	Tolleson Trickling Filter	-	-		
16	Citizens Acquisition Adjustment	10,401,376	(10,401,376)	C	-
17	Original Cost Rate Base	$ 19,250,769	$ (10,334,752)		$ 8,916,017

Adjustments:
A. Per plant adjustments on Surrebuttal Schedule DWC-4
B. Per accumulated depreciation adjustments on Surrebuttal Schedule DWC-4
C. Per acquisition adjustment on Surrebuttal Schedule DWC-4

References:
Column [A]: Company Schedule B-1
Column [B]: Staff Surrebuttal Schedule DWC-4
Column [C]: Column [A] + Column [B]

ARIZONA-AMERICAN WATER COMPANY, INC. - SUN CITY WEST WASTEWATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-4

SURREBUTTAL SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS

LINE NO.	ACCT. NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] Plant-not used ADJ #1	[C] Plant-unidentified ADJ #2	[D] Plant Mis-Posted ADJ #3	[E] Plant Prev. Dec. ADJ #4	[F] Post-TY Pl. ADJ #5	[G] AFUDC Adj. ADJ #6	[H] Acquisition Adj ADJ #7	[I] STAFF ADJUSTED
		PLANT IN SERVICE:				Leave Blank	Leave Blank				
1		Intangible									
2	301.00	Organization	$ 4,078	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,078
3	302.00	Franchises	1,372	-	-	-	-	-	-	-	1,372
4	303.00	Miscellaneous Intangibles	5,184	-	-	-	-	-	-	-	5,184
5		Subtotal Intangible	10,634	-	-	-	-	-	-	-	10,634
6											
7		Treatment and Discharge									
8	310.00	Land & Land Rights	542,319	-	-	-	-	-	-	-	542,319
9	311.00	Structures & Improvements	2,739,560	-	-	-	-	(21,563)	-	-	2,717,997
10	312.00	Preliminary Treatment	1,068,943	-	-	-	-	-	-	-	1,068,943
11	313.00	Primary Treatment Eauipment	1,090,472	-	-	-	-	(6,300)	-	-	1,084,172
12	314.00	Secondary Treatment Equipment	5,720,776	-	-	-	-	(6,300)	-	-	5,714,476
13	315.00	Tertiary Equipment	6,087,981	-	-	-	-	-	-	-	6,087,981
14	316.00	Disfection Equipment	245,070	(212,082)	-	-	-	-	-	-	32,988
15	317.00	Effluent Lift Station E	1,004,341	-	-	-	-	-	-	-	1,004,341
16	318.00	Outfall Line	94,680	-	-	-	-	18,461	-	-	113,141
17	319.00	Sludge, Treatment & Distribution	-	-	-	-	-	-	-	-	-
18	321.00	Influent Lift Station	91,546	-	-	-	-	-	-	-	91,546
20	322.00	General Treatment Equipment	902,060	-	(2,987)	-	-	-	-	-	899,073
13		Subtotal Treatment & Discharge	19,587,748	(212,082)	(2,987)	-	-	(15,702)	-	-	19,356,977
14											
15		Collection and Influent									
16	340.00	Land & Land Rights	20,747	-	-	-	-	-	-	-	20,747
17	341.00	Structures & Improvements	-	-	-	-	-	-	-	-	-
18	342.00	Collection System Lift	1,356,167	-	(380)	-	-	-	-	-	1,355,787
19	343.00	Collection Mains	12,982,219	-	-	-	-	(4,544)	-	-	12,977,675
20	344.00	Force Mains	752,939	-	-	-	-	-	-	-	752,939
	345.00	Discharge Services	2,645,161	-	-	-	-	-	-	-	2,645,161
21	348.00	Manholes	-	-	-	-	-	-	-	-	-
22		Subtotal Collection and Influent	17,757,233	-	(380)	-	-	(4,544)	-	-	17,752,309
23											
42		General - Allocated Common Plant									
43	389.00	Land & Land Rights	780	-	-	-	-	-	-	-	780
44	390.00	Structures & Improvements	948,864	-	-	-	-	(9,826)	-	-	939,038
45	391.00	Office Furniture and Equipment	193,582	-	-	-	-	-	-	-	193,582
46	391.10	Computer Equipment	273,086	(94,656)	-	-	-	-	-	-	178,430
47	392.00	Transportation Equipment	287,389	-	-	-	-	-	-	-	287,389
48	393.00	Stores Equipment	10,093	-	-	-	-	-	-	-	10,093
49	394.00	Tools, Shop, & Garage Equipment	71,223	-	-	-	-	(3,880)	-	-	67,343
50	395.00	Laboratory Equipment	20,819	-	-	-	-	(5,500)	-	-	15,319
51	396.00	Power Operated Equipment	46,439	-	-	-	-	-	-	-	46,439
52	397.00	Communication Equipment	92,335	-	-	-	-	32,468	-	-	124,803
53	398.00	Miscellaneous Equipment	44,306	-	-	-	-	-	-	-	44,306
54		Subtotal General	1,988,916	(94,656)	-	-	-	13,262	-	-	1,907,522
55											
56		Add:		-	-	-	-	-	-	-	-
57				-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-
58		Less:	-	-	-	-	-	-	-	-	-
59		Youngtown Plant*	-	-	-	-	-	-	-	-	-
60		AFUDC Adjustment 3/95**	(242,717)	-	-	-	-	-	242,717	-	-
61		Total Plant in Service	$ 39,101,814	$ (306,738)	$ (3,367)	$ -	$ -	$ (6,984)	$ 242,717	$ -	$ 39,027,442
62		Less: Accumulated Depreciation	14,290,245	214,965	-	-	-	-	73,969	-	14,149,249
63		Net Plant in Service (L59 - L 60)	$ 24,811,569	$ (91,773)	$ (3,367)	$ -	$ -	$ (6,984)	$ 168,748	$ -	$ 24,878,193
64											
65		*LESS:*									
66		Contributions in Aid of Construction (CIAC)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
67		Less: Accumulated Amortization	-	-	-	-	-	-	-	-	-
68		Net CIAC (L25 - L26)	1,458,672	-	-	-	-	-	-	-	1,458,672
69		Advances in Aid of Construction (AIAC)	14,502,979	-	-	-	-	-	-	-	14,502,979
70		Customer Deposits	525	-	-	-	-	-	-	-	525
71		Meter Advances	-	-	-	-	-	-	-	-	-
72		Deferred Income Tax Credits	-	-	-	-	-	-	-	-	-
73											
74		*ADD:*									
75		Cash Working Capital Allowance	-	-	-	-	-	-	-	-	-
76		Prepayments	-	-	-	-	-	-	-	-	-
77		Supplies Inventory	-	-	-	-	-	-	-	-	-
78		Projected Capital Expenditures	-	-	-	-	-	-	-	-	-
79		Deferred Debits	-	-	-	-	-	-	-	-	-
80		Tolleson Trickling Filter	-	-	-	-	-	-	-	-	-
81		Citizens Acquisition Adjustment	10,401,376	-	-	-	-	-	-	(10,401,376)	-
82		Original Cost Rate Base	$ 19,250,769	$ (91,773)	$ (3,367)	$ -	$ -	$ (6,984)	$ 168,748	$ (10,401,376)	$ 8,916,017

ADJ #		References:
1	Plant - not used & useful	Per Staff Engineering Reports
2	Plant - unidentified	Per Staff Engineering Reports
3	Plant - mis-posted	Per Company Response to Staff Data Request BKB 26-3
4	Plant - removed by previous decision	Per Decision No. 60172
5	Post-Test Year Plant	Per Company Response to Staff Data Request DWC 12-2
6	Remove AFUDC Adj. 3/95	Per Company Response to Staff Data Request DWC 6-10 Amended
7	Remove Acquisition Adjustment	Per Carlson Direct Testimony

ARIZONA-AMERICAN WATER COMPANY, INC. - SUN CITY WEST WASTEWATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

SCHEDULE AII-1

SURREBUTTAL OPERATING INCOME STATEMENT - TEST YEAR AND STAFF PROPOSED

LINE NO.	DESCRIPTION	[A] COMPANY TEST YEAR AS FILED	[B] STAFF TEST YEAR ADJUSTMENTS	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF PROPOSED CHANGES	[E] STAFF RECOMMENDED
1	*REVENUES:*					
2	Flat Rate Revenues	$ 3,534,678	$ -	$ 3,534,678	$ 1,095,198	$ 4,629,876
3	Measured Revenues	-	-	-	-	-
4	Other Wastewater Revenues	1,002	-	1,002	-	1,002
5	Total Operating Revenues	$ 3,535,680	$ -	$ 3,535,680	$ 1,095,198	$ 4,630,878
6						
7	*OPERATING EXPENSES:*					
8	Salaries & Wages	$ 607,304	$ 65,733	$ 673,037	$ -	$ 673,037
9	Purchased Wastewater Treatment	-	-	-	-	-
10	Purchased Power	1,426	-	1,426	-	1,426
11	Fuel for Power Production	-	-	-	-	-
12	Chemicals	375,064	(19,388)	355,676	-	355,676
13	Materials & Supplies	392,206	2,882	395,088	-	395,088
14	Repairs & Maintenance	-	-	-		-
15	Office Supplies & Expense	136,282	(136,282)	-	-	-
16	Outside Services	(14,005)	11,712	(2,293)	-	(2,293)
17	Service Company Charges	552,478	(552,478)	-	-	-
18	Water Testing	-	-	-	-	-
19	Rents	91,410	-	91,410	-	91,410
20	Transportation Expense	-	-	-	-	-
21	Insurance - General Liability	24,187	44,325	68,512	-	68,512
22	Insurance -Health and Life	-	-	-	-	-
23	Regulatory Comm. Exp. - Rate Case	23,335	-	23,335	-	23,335
24	Miscellaneous Operating Expense	243,134	374,587	617,721	-	617,721
25	Depreciation Expense	1,432,265	(26,253)	1,406,012	-	1,406,012
26	Taxes Other Than Income	36,253	30,920	67,173	-	67,173
27	Property Taxes	168,501	(11,912)	156,589	-	156,589
28	Income Tax	(369,763)	148,246	(221,517)	422,734	201,217
29	Tolleson Wastewater User Fees	-	-	-	-	-
30						
31	Total Operating Expenses	$ 3,700,077	$ (67,908)	$ 3,632,169	$ 422,734	$ 4,054,903
32	Operating Income (Loss)	$ (164,397)	$ 67,908	$ (96,489)	$ 672,464	$ 575,975

References:
Column [A]: Company Schedule C-1
Column [B]: Surrebuttal Schedule AII-2
Column [C]: Column [A] + Column [B]
Column [D]: Surrebuttal Schedules DWC-1 and DWC-2
Column [E]: Column [C] + Column [D]

ARIZONA-AMERICAN WATER COMPANY, INC. - SUN CITY WEST WASTEWATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

SCHEDULE AII-2

SURREBUTTAL SUMMARY OF OPERATING INCOME STATEMENT ADJUSTMENTS - TEST YEAR

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJ #1	[C] ADJ #2	[D] ADJ #3	[E] ADJ #4	[F] ADJ #5	[G] ADJ #6	[H] ADJ #7	[I] ADJ #8	[J] STAFF ADJUSTED
1	*REVENUES:*										
2	Flat Rate Revenues	$ 3,534,678	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,534,678
3	Measured Revenues	-	-	-	-	-	-	-	-	-	-
4	Other Wastewater Revenues	1,002	-	-	-	-	-	-	-	-	1,002.0
5	Total Operating Revenues	$ 3,535,680	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,535,680
6											
7	*OPERATING EXPENSES:*										
8	Salaries & Wages	$ 607,304	$ -	$ -	$ (162,234)	$ 673,037	$ (445,070)	$ -	$ -	$ -	$ 673,037
9	Purchased Wastewater Treatment	-	-	-	-	-	-	-	-	-	-
10	Purchased Power	1,426	-	-	-	-	-	-	-	-	1,426
11	Fuel for Power Production	-	-	-	-	-	-	-	-	-	-
12	Chemicals	375,064	3,862	-	(23,250)	-	-	-	-	-	355,676
13	Materials & Supplies	392,206	2,882	-	-	-	-	-	-	-	395,088
14	Repairs & Maintenance	-	-	-	-	-	-	-	-	-	-
15	Office Supplies & Expense	136,282	9,821	-	(146,103)	-	-	-	-	-	-
16	Outside Services	(14,005)	11,712	-	-	-	-	-	-	-	(2,293)
17	Service Company Charges	552,478	-	(552,478)		-	-	-	-	-	-
18	Water Testing	-	-	-	-	-	-	-	-	-	-
19	Rents	91,410	-	-	-	-	-	-	-	-	91,410
20	Transportation Expense	-	-	-	-	-	-	-	-	-	-
21	Insurance - General Liability	24,187	44,325	-	-	-	-	-	-	-	68,512
22	Insurance -Health and Life	-	-	-	-	-	-	-	-	-	-
23	Regulatory Comm. Exp. - Rate Case	23,335	-	-	-	-	-	-	-	-	23,335
24	Miscellaneous Operating Expense	243,134	375,507	-	(920)	-	-	-	-	-	617,721
25	Depreciation Expense	1,432,265	-	-	-	-		(26,253)	-	-	1,406,012
26	Taxes Other Than Income	36,253	(17)	-	-	67,189	(36,253)	-	-	-	67,173
27	Property Taxes	168,501	-	-	-	-	-		(11,912)	-	156,589
28	Income Tax	(369,763)	-	-	-	-	-	-	-	148,246	(221,517)
29	Tolleson Wastewater User Fees	-	-	-	-	-	-	-	-	-	-
30											
31	Total Operating Expenses	$ 3,700,077	$ 448,093	$ (552,478)	$ (332,507)	$ 740,226	$ (481,323)	$ (26,253)	$ (11,912)	$ 148,246	$ 3,632,169
32	Operating Income (Loss)	$ (164,397)	$ (448,093)	$ 552,478	$ 332,507	$ (740,226)	$ 481,323	$ 26,253	$ 11,912	$ (148,246)	$ (96,489)

ADJ #		References:
1	Citizens, Corporate Costs Allocation	Schedule AII-3
2	Service Company Charges	Schedule AII-4
3	Projected additional expenses	Schedule AII-5
4	Test Year Salaries, Wages & Related Expenses	Schedule AII-6
5	Projected Salaries, Wages & Related Expenses	Schedule AII-7
6	Depreciation Expense	Schedule AII-8
7	Property Taxes	Schedule AII-9
8	Income Taxes	Schedule AII-10

SUN CITY WATER

ARIZONA-AMERICAN WATER COMPANY, INC. - SUN CITY WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-1

SURREBUTTAL REVENUE REQUIREMENT

LINE NO.	DESCRIPTION	[A] STAFF RCND VALUE	[B] STAFF ORIGINAL COST	[C] STAFF FAIR VALUE
1	Adjusted Rate Base	$ 43,955,934	$ 21,853,479	$ 32,904,707
2	Adjusted Operating Income/(Loss)	$ 234,969	$ 234,969	$ 234,969
3	Current Rate of Return (L2 / L1)	0.53%	1.08%	0.71%
4	Required Rate of Return	3.2%	6.5%	4.2%
5	Required Operating Income (L4 x L1)	$ 1,411,735	$ 1,411,735	$ 1,411,735
6	Operating Income Deficiency/(Excess) (L5 - L2)	$ 1,176,766	$ 1,176,766	$ 1,176,766
7	Gross Revenue Conversion Factor	1.62863	1.62863	1.62863
8	Required Revenue Increase/(Decrease) (L7 x L6)	$ 1,916,522	$ 1,916,522	$ 1,916,522
9	Adjusted Test Year Revenue	$ 6,193,090	$ 6,193,090	$ 6,193,090
10	Proposed Annual Revenue (L8 + L9)	$ 8,109,612	$ 8,109,612	$ 8,109,612
11	Required Increase/Decrease in Revenue (%)	30.95%	30.95%	30.95%
12	Rate of Return on Common Equity (%)	9.0%	9.0%	9.0%

References:

Columns [A], [B], & [C]: Staff Surrebuttal Schedules AII-1, DWC-2, DWC-3, & JMR-S8

ARIZONA-AMERICAN WATER COMPANY, INC. - SUN CITY WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-2

SURREBUTTAL GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	[A]	[B]	[C]	[D]
	Calculation of Gross Revenue Conversion Factor:				
1	Billings	100.0000%			
2	Uncollecible Factor (Line 11)	0.0000%			
3	Revenues (L1 - L2)	100.0000%			
4	Combined Federal and State Tax Rate (Line 17)	38.5989%			
5	Subtotal (L3 - L4)	61.4011%			
6	Revenue Conversion Factor (L1 / L5)	1.628635			
	Calculation of Uncollecttible Factor:				
7	Unity	100.0000%			
8	Combined Federal and State Tax Rate (Line 17)	38.5989%			
9	One Minus Combined Income Tax Rate (L7 - L8)	61.4011%			
10	Uncollectible Rate	0.0000%			
11	Uncollectible Factor (L9 x L10)	0.0000%			
	Calculation of Effective Tax Rate:				
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%			
13	Arizona State Income Tax Rate	6.9680%			
14	Federal Taxable Income (L12 - L13)	93.0320%			
15	Applicable Federal Income Tax Rate (Line 40)	34.0000%			
16	Effective Federal Income Tax Rate (L14 x L15)	31.6309%			
17	Combined Federal and State Income Tax Rate (L13 + L16)	38.5989%			
18	Required Operating Income (Schedule DWC-1, Col. [B], Line 5)	$ 1,411,735			
19	Adjusted Test Year Operating Income (Loss) (Sch. AII-1, Col. [C], Line 28)	$ 234,969			
20	Required Increase in Operating Income (L18 - L19)		$ 1,176,766		
21	Income Taxes on Recommended Revenue (Col. [D], L39)	$ 493,189			
22	Income Taxes on Test Year Revenue (Col. [B], L39)	$ (246,567)			
23	Required Increase in Revenue to Provide for Income Taxes (L21 - L22)		$ 739,756		
24	Recommended Revenue Requirement (Schedule DWC-1, Col. [B], Line 10)	$ 8,109,612			
25	Uncollectible Rate (Line 10)	0.0000%			
26	Uncollectible Expense on Recommended Revenue (L24 x L25)	$ -			
27	Adjusted Test Year Uncollectible Expense	$ -			
28	Required Increase in Revenue to Provide for Uncollectible Exp. (L26 - L27)		$ -		
29	Total Required Increase in Revenue (L20 + L23 + L28)		$ 1,916,522		
	Calculation of Income Tax:	Test Year		STAFF Recommended	
30	Revenue (Schedule AII-1, Col. [C], Line 5 & Sch. DWC-1, Col. [B], Line 10)	$ 6,193,090		$ 8,109,612	
31	Operating Expenses Excluding Income Taxes	$ 6,204,688		$ 6,204,688	
32	Synchronized Interest (L43)	$ 627,195		$ 627,195	
33	Arizona Taxable Income (L30 - L31 - L32)	$ (638,793)		$ 1,277,729	
34	Arizona State Income Tax Rate	6.9680%		6.9680%	
35	Arizona Income Tax (L33 x L34)		$ (44,511)		$ 89,032
36	Federal Taxable Income (L33 - L35)	$ (594,282)		$ 1,188,697	
37	Federal Income Tax Rate	34.0000%		34.0000%	
38	Federal Income Tax (L36 x L37)		-202056		404157
39	Combined Federal and State Income Tax (L35 + L38)		$ (246,567)		$ 493,189
40	Applicable Federal Income Tax Rate (Col. [D], L38 - Col. [B], L38) / (Col. [C], L36 - Col. [A], L36)				34.0000%
	Calculation of Interest Synchronization:				
41	Rate Base (Schedule DWC-3, Col. [C], Line 17)	$ 21,853,479			
42	Weighted Average Cost of Debt	2.87%			
43	Synchronized Interest (L41 x L42)	$ 627,195			

SURREBUTTAL RATE BASE - ORIGINAL COST

LINE NO.		[A] COMPANY AS FILED	[B] STAFF ADJUSTMENTS	ADJ	[C] STAFF AS ADJUSTED
1	Plant in Service	$ 39,396,791	$ (635,434)	A	$ 38,761,357
2	Less: Accumulated Depreciation	13,717,002	(268,613)	B	13,448,389
3	Net Plant in Service	$ 25,679,789	$ (366,821)		$ 25,312,968
	LESS:				
4	Contributions in Aid of Construction (CIAC)	$ -	$ -		$ -
5	Less: Accumulated Amortization	-	-		-
6	Net CIAC	1,127,078	-		1,127,078
7	Advances in Aid of Construction (AIAC)	2,331,186	-		2,331,186
8	Customer Deposits	-	-		-
9	Meter Advances	1,225	-		1,225
10	Deferred Income Tax Credits	-	-		-
	ADD:				
11	Cash Working Capital	-	-		-
12	Prepayments	-	-		-
13	Supplies Inventory	-	-		-
14	Projected Capital Expenditures	-	-		-
15	Deferred Debits	-	-		-
16	Citizens Acquisition Adjustment	9,746,553	(9,746,553)	C	-
17	Original Cost Rate Base	$ 31,966,853	$ (10,113,374)		$ 21,853,479

Adjustments:
A. Per plant adjustments on Surrebuttal Schedule DWC-4
B. Per accumulated depreciation adjustments on Surrebuttal Schedule DWC-4
C. Per acquisition adjustment on Surrebuttal Schedule DWC-4

References:
Column [A]: Company Schedule B-1
Column [B]: Staff Surrebuttal Schedule DWC-4
Column [C]: Column [A] + Column [B]

ARIZONA-AMERICAN WATER COMPANY, INC. - SUN CITY WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-4

SURREBUTTAL SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS

LINE NO.	ACCT. NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] Plant-not used ADJ #1	[C] Plant-unidentified ADJ #2	[D] Plant Mis-Posted ADJ #3	[E] Plant Prev. Dec. ADJ #4	[F] Post-TY Pl. ADJ #5	[G] AFUDC Adj. ADJ #6	[H] Acquisition Adj ADJ #7	[I] STAFF ADJUSTED
		PLANT IN SERVICE:			Leave Blank						
1		Intangible									
2	301.00	*Organization*	$ 471	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 471
3	302.00	Franchises	2,851	-	-	-	-	-	-	-	2,851
4	303.00	Miscellaneous Intangibles	4,591	-	-	-	-	-	-	-	4,591
5		Subtotal Intangible	7,913	-	-	-	-	-	-	-	7,913
6											
7		Source of Supply									
8	310.00	Land & Land Rights	180,083	-	-	-	-	-	-	-	180,083
9	311.00	Structures & Improvements	682,896	-	-	-	-	192,348	-	-	875,244
10	312.00	Collecting & Impounding Reservoirs	314	-	-	-	-	-	-	-	314
11	313.00	Lakes, Rivers, Other Intakes	-	-	-	-	-	-	-	-	-
12	314.00	Wells and Springs	2,533,035	(407,025)	-	-	(88,746)	(145,720)	-	-	1,891,544
13		Subtotal Source of Supply	3,396,328	(407,025)	-	-	(88,746)	46,628	-	-	2,947,185
14											
15		Pumping									
16	320.00	Land & Land Rights	8,456	-	-	-	-	-	-	-	8,456
17	321.00	*Structures & Improvements*	582,491	-	-	-	-	-	-	-	582,491
18	323.00	Other Power Production	9,554	-	-	-	-	-	-	-	9,554
19	325.00	Electric Pumping Equipment	6,943,367	(31,713)	-	(171,390)	-	(71,468)	-	-	6,668,796
20	326.00	Diesel Pumping Equipment	25,151	-	-	-	-	-	-	-	25,151
21	328.10	Gas Engine Pumping Equipment	249,781	-	-	-	-	-	-	-	249,781
22		Subtotal Pumping	7,818,800	(31,713)	-	(171,390)	-	(71,468)	-	-	7,544,229
23											
24		Water Treatment									
25	330.00	Land & Land Rights	-	-	-	-	-	-	-	-	-
26	331.00	Structures & Improvements	80,580	-	-	-	-	-	-	-	80,580
27	332.00	Water Treatment Equipment	407,427	(19,594)	-	-	-	5,357	-	-	393,190
28		Subtotal Water Treatment	488,007	(19,594)	-	-	-	5,357	-	-	473,770
29											
30		Transmission & Distribution									
31	340.00	Land & Land Rights	10,493	-	-	-	-	-	-	-	10,493
32	341.00	Structures & Improvements	28,604	-	-	-	-	-	-	-	28,604
33	342.00	Distribution Reservoirs & Standpipes	1,819,148	(319,215)	-	-	-	12,578	-	-	1,512,511
34	343.00	Transmission & Distribution	13,940,066	-	-	-	-	94,037	-	-	14,034,103
35	344.00	Fire Mains	-	-	-	-	-	-	-	-	-
36	345.00	Services	4,783,796	-	-	-	-	-	-	-	4,783,796
37	346.00	Meters	3,232,044	-	-	-	-	-	-	-	3,232,044
38	348.00	Hydrants	1,797,909	-	-	-	-	16,772	-	-	1,814,681
39	349.00	Other Transmission & Distribution	523	-	-	-	-	-	-	-	523
40		Subtotal Transmission & Distribu.	25,612,583	(319,215)	-	-	-	123,387	-	-	25,416,755
41											
42		General									
43	389.00	Land & Land Rights	1,163	-	-	-	-	-	-	-	1,163
44	390.00	Structures & Improvements	798,274	-	-	-	-	-	-	-	798,274
45	391.00	Office Furniture and Equipment	407,688	-	-	-	-	94,703	-	-	502,391
46	391.10	Computer Equipment	372,221	(141,104)	-	-	-	-	-	-	231,117
47	392.00	Transportation Equipment	605,009	-	-	-	-	(25,663)	-	-	579,346
48	393.00	Stores Equipment	6,847	-	-	-	-	-	-	-	6,847
49	394.00	Tools, Shop, & Garage Equipment	121,573	-	-	-	-	(23,600)	-	-	97,973
50	395.00	Laboratory Equipment	33,835	-	-	-	-	(2,800)	-	-	31,035
51	396.00	Power Operated Equipment	30,379	(669)	-	-	-	(1,700)	-	-	28,010
52	397.00	Communication Equipment	229,443	-	-	-	-	(51,644)	-	-	177,799
53	398.00	Miscellaneous Equipment	66,047	-	-	-	-	-	-	-	66,047
54		Subtotal General	2,672,479	(141,773)	-	-	-	(10,704)	-	-	2,520,002
55			39,996,110								
56		Add:									
57											
58		Less:									
59		Youngtown Plant*	(148,497)	-	-	-	-	-	-	-	(148,497)
60		AFUDC Adjustment 3/95**	(450,822)	-	-	-	-	-	450,822	-	-
61		Total Plant in Service	$ 39,396,791	$ (919,320)	$ -	$ (171,390)	$ (88,746)	$ 93,200	$ 450,822	$ -	$ 38,761,357
62		Less: Accumulated Depreciation	13,717,002	305,006	-	41,665	33,764	-	111,822	-	13,448,389
63		Net Plant in Service (L59 - L 60)	$ 25,679,789	$ (614,314)	$ -	$ (129,725)	$ (54,982)	$ 93,200	$ 339,000	$ -	$ 25,312,968
64											
65		*LESS:*									
66		Contributions in Aid of Construction (CIAC)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
67		Less: Accumulated Amortization	-	-	-	-	-	-	-	-	-
68		Net CIAC (L25 - L26)	1,127,078	-	-	-	-	-	-	-	1,127,078
69		Advances in Aid of Construction (AIAC)	2,331,186	-	-	-	-	-	-	-	2,331,186
70		Customer Deposits	-	-	-	-	-	-	-	-	-
71		Meter Advances	1,225	-	-	-	-	-	-	-	1,225
72		Deferred Income Tax Credits	-	-	-	-	-	-	-	-	-
73											
74		*ADD:*									
75		Cash Working Capital Allowance	-	-	-	-	-	-	-	-	-
76		Prepayments	-	-	-	-	-	-	-	-	-
77		Supplies Inventory	-	-	-	-	-	-	-	-	-
78		Projected Capital Expenditures	-	-	-	-	-	-	-	-	-
79		Deferred Debits	-	-	-	-	-	-	-	-	-
80		Citizens Acquisition Adjustment	9,746,553	-	-	-	-	-	-	(9,746,553)	-
81		Original Cost Rate Base	$ 31,966,853	$ (614,314)	$ -	$ (129,725)	$ (54,982)	$ 93,200	$ 339,000	$ (9,746,553)	$ 21,853,479

ADJ #		References:
1	Plant - not used & useful	Per Staff Engineering Reports
2	Plant - unidentified	Per Staff Engineering Reports
3	Plant - mis-posted	Per Company Response to Staff Data Request BKB 26-3
4	Plant - removed by previous decision	Per Decision No. 60172
5	Post-Test Year Plant	Per Company Response to Staff Data Request DWC 12-2
6	Remove AFUDC Adj. 3/95	Per Company Response to Staff Data Request DWC 6-10 Amended
7	Remove Acquisition Adjustment	Per Carlson Direct Testimony

ARIZONA-AMERICAN WATER COMPANY, INC. - SUN CITY WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule AII-1

SURREBUTTAL OPERATING INCOME STATEMENT - TEST YEAR AND STAFF PROPOSED

LINE NO.	DESCRIPTION	[A] COMPANY TEST YEAR AS FILED	[B] STAFF TEST YEAR ADJUSTMENTS	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF PROPOSED CHANGES	[E] STAFF RECOMMENDED
1	*REVENUES:*					
2	Metered Water Sales	$ 6,079,671	$ -	$ 6,079,671	$ 1,916,522	$ 7,996,193
3	Water Sales - Unmetered	-	$ -	$ -	-	-
4	Other Operating Revenue	113,419	$ -	$ 113,419	-	113,419
5	Total Operating Revenues	$ 6,193,090	$ -	$ 6,193,090	$ 1,916,522	$ 8,109,612
6	*OPERATING EXPENSES:*					
7	Salaries & Wages	$ 1,167,073	$ 401,344	$ 1,568,417	$ -	$ 1,568,417
8	Purchased Water	-	$ -	$ -	-	-
9	Purchased Pumping Power	1,416,410	$ 761	$ 1,417,171	-	1,417,171
10	Chemicals	17,413	$ -	$ 17,413	-	17,413
11	Repairs & Maintenance	540,349	$ (37)	$ 540,312	-	540,312
12	Office Supplies & Expense	483,141	$ (313,622)	$ 169,519	-	169,519
13	Outside Services	93,641	$ 70,923	$ 164,564	-	164,564
14	Service Company Charges	926,122	$ (926,122)	$ -	-	-
15	Water Testing	6,878	$ -	$ 6,878	-	6,878
16	Rents	28,369	$ -	$ 28,369	-	28,369
17	Transportation Expense	22	$ -	$ 22	-	22
18	Insurance - General Liability	87,848	$ (9,411)	$ 78,437	-	78,437
19	Insurance - Health and Life	-	$ -	$ -	-	-
20	Regulatory Comm. Exp. - Rate Case	40,874	$ -	$ 40,874	-	40,874
21	Miscellaneous Operating Expense	300,122	$ 564,571	$ 864,693	-	864,693
22	Depreciation Expense	1,025,028	$ (70,180)	$ 954,848	-	954,848
23	Taxes Other Than Income	62,065	$ 52,615	$ 114,680	-	114,680
24	Property Taxes	186,779	$ 51,713	$ 238,492	-	238,492
25	Income Tax	(665,050)	$ 418,483	$ (246,567)	739,756	493,189
26						
27	Total Operating Expenses	$ 5,717,084	$ 241,037	$ 5,958,121	$ 739,756	$ 6,697,877
28	Operating Income (Loss)	$ 476,006	$ (241,037)	$ 234,969	$ 1,176,766	$ 1,411,735

References:
Column [A]: Company Schedule C-1
Column [B]: Surrebuttal Schedule AII-2
Column [C]: Column [A] + Column [B]
Column [D]: Surrebuttal Schedules DWC-1 and DWC-2
Column [E]: Column [C] + Column [D]

ARIZONA-AMERICAN WATER COMPANY, INC. - SUN CITY WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule AII-2

SURREBUTTAL SUMMARY OF OPERATING INCOME STATEMENT ADJUSTMENTS - TEST YEAR

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJ #1	[C] ADJ #2	[D] ADJ #3	[E] ADJ #4	[F] ADJ #5	[G] ADJ #6	[H] ADJ #7	[I] ADJ #8	[J] STAFF ADJUSTED
1	*REVENUES:*										
2	Metered Water Sales	$ 6,079,671	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 6,079,671
3	Water Sales - Unmetered	-	-	-	-	-	-	-	-	-	$ -
4	Other Operating Revenue	113,419	-	-	-	-	-	-	-	-	$ 113,419
5	Total Operating Revenues	$ 6,193,090	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 6,193,090
											$ -
6	*OPERATING EXPENSES:*										$ -
7	Salaries & Wages	$ 1,167,073	$ -		$ (432,625)	$ 833,969	$ -	$ -	$ -	$ -	$ 1,568,417
8	Purchased Water	-	$ -	-	$ -	-	-	-	-	-	$ -
9	Purchased Pumping Power	1,416,410	761	-	-	-	-	-	-	-	$ 1,417,171
10	Chemicals	17,413	-	-	-	-	-	-	-	-	$ 17,413
11	*Repairs & Maintenance*	540,349	(37)	-	-	-	-	-	-	-	$ 540,312
12	Office Supplies & Expense	483,141	27,135	-	(340,757)	-	-	-	-	-	$ 169,519
13	Outside Services	93,641	70,923	-	-	-	-	-	-	-	$ 164,564
14	Service Company Charges	926,122	-	(926,122)	-	-	-	-	-	-	$ -
15	Water Testing	6,878	-	-	-	-	-	-	-	-	$ 6,878
16	Rents	28,369	-	-		-	-	-	-	-	$ 28,369
17	Transportation Expense	22	-	-	-	-	-	-	-	-	$ 22
18	Insurance - General Liability	87,848	74,741	-	(84,152)	-	-	-	-	-	$ 78,437
19	Insurance -Health and Life	-	-	-	-	-	-	-	-	-	$ -
20	Regulatory Comm. Exp. - Rate Case	40,874	-	-	-	-	-	-	-	-	$ 40,874
21	*Miscellaneous Operating Expense*	300,122	568,017	-	(3,446)	-	-	-	-	-	$ 864,693
22	Depreciation Expense	1,025,028	-	-	-	-		(70,180)	-	-	$ 954,848
23	Taxes Other Than Income	62,065	-			114,680	(62,065)	-	-	-	$ 114,680
24	Property Taxes	186,779	-	-	-	-	-		51,713	-	$ 238,492
25	Income Tax	(665,050)	-	-	-	-	-	-	-	418,483	$ (246,567)
26											$ -
27	Total Operating Expenses	$ 5,717,084	$ 741,540	$ (926,122)	$ (860,980)	$ 948,649	$ (62,065)	$ (70,180)	$ 51,713	$ 418,483	$ 5,958,121
28	Operating Income (Loss)	$ 476,006	$ (741,540)	$ 926,122	$ 860,980	$ (948,649)	$ 62,065	$ 70,180	$ (51,713)	$ (418,483)	$ 234,969

ADJ #		References:
1	Citizens, Corporate Costs Allocation	Schedule AII-3
2	Service Company Charges	Schedule AII-4
3	Projected additional expenses	Schedule AII-5
4	Test Year Salaries, Wages & Related Expenses	Schedule AII-6
5	Projected Salaries, Wages & Related Expenses	Schedule AII-7
6	Depreciation Expense	Schedule AII-8
7	Property Taxes	Schedule AII-9
8	Income Taxes	Schedule AII-10

SUN CITY
WASTEWATER

ARIZONA-AMERICAN WATER COMPANY, INC. - SUN CITY WASTEWATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-1

SURREBUTTAL REVENUE REQUIREMENT

LINE NO.	DESCRIPTION	[A] STAFF RCND VALUE	[B] STAFF ORIGINAL COST	[C] STAFF FAIR VALUE
1	Adjusted Rate Base	$ 17,199,992	$ 8,713,382	$ 12,956,687
2	Adjusted Operating Income/(Loss)	$ 1,081,472	$ 1,081,472	$ 1,081,472
3	Current Rate of Return (L2 / L1)	6.29%	12.41%	8.35%
4	Required Rate of Return	3.3%	6.5%	4.3%
5	Required Operating Income (L4 x L1)	$ 562,884	$ 562,884	$ 562,884
6	Operating Income Deficiency/(Excess) (L5 - L2)	$ (518,587)	$ (518,587)	$ (518,587)
7	Gross Revenue Conversion Factor	1.62863	1.62863	1.62863
8	Required Revenue Increase/(Decrease) (L7 x L6)	$ (844,589)	$ (844,589)	$ (844,589)
9	Adjusted Test Year Revenue	$ 5,088,340	$ 5,088,340	$ 5,088,340
10	Proposed Annual Revenue (L8 + L9)	$ 4,243,751	$ 4,243,751	$ 4,243,751
11	Required Increase/Decrease in Revenue (%)	-16.60%	-16.60%	-16.60%
12	Rate of Return on Common Equity (%)	9.0%	9.0%	9.0%

References:

Columns [A], [B], & [C]: Staff Surrebuttal Schedules AII-1, DWC-2, DWC-3, & JMR-S8

ARIZONA-AMERICAN WATER COMPANY, INC. - SUN CITY WASTEWATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-2

SURREBUTTAL GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	[A]	[B]	[C]	[D]
	Calculation of Gross Revenue Conversion Factor:				
1	Billings	100.0000%			
2	Uncollecible Factor (Line 11)	0.0000%			
3	Revenues (L1 - L2)	100.0000%			
4	Combined Federal and State Tax Rate (Line 17)	38.5989%			
5	Subtotal (L3 - L4)	61.4011%			
6	Revenue Conversion Factor (L1 / L5)	1.628635			
	Calculation of Uncollecttible Factor:				
7	Unity	100.0000%			
8	Combined Federal and State Tax Rate (Line 17)	38.5989%			
9	One Minus Combined Income Tax Rate (L7 - L8)	61.4011%			
10	Uncollectible Rate	0.0000%			
11	Uncollectible Factor (L9 x L10)	0.0000%			
	Calculation of Effective Tax Rate:				
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%			
13	Arizona State Income Tax Rate	6.9680%			
14	Federal Taxable Income (L12 - L13)	93.0320%			
15	Applicable Federal Income Tax Rate (Line 40)	34.0000%			
16	Effective Federal Income Tax Rate (L14 x L15)	31.6309%			
17	Combined Federal and State Income Tax Rate (L13 + L16)	38.5989%			
18	Required Operating Income (Schedule DWC-1, Col. [B], Line 5)	$ 562,884			
19	Adjusted Test Year Operating Income (Loss) (Sch. AII-1, Col. [C], Line 28)	$ 1,081,472			
20	Required Increase in Operating Income (L18 - L19)		$ (518,587)		
21	Income Taxes on Recommended Revenue (Col. [D], L39)	$ 196,643			
22	Income Taxes on Test Year Revenue (Col. [B], L39)	$ 522,645			
23	Required Increase in Revenue to Provide for Income Taxes (L21 - L22)		$ (326,002)		
24	Recommended Revenue Requirement (Schedule DWC-1, Col. [B], Line 10)	$ 4,243,751			
25	Uncollectible Rate (Line 10)	0.0000%			
26	Uncollectible Expense on Recommended Revenue (L24 x L25)	$ -			
27	Adjusted Test Year Uncollectible Expense	$ -			
28	Required Increase in Revenue to Provide for Uncollectible Exp. (L26 - L27)		$ -		
29	Total Required Increase in Revenue (L20 + L23 + L28)		$ (844,589)		
	Calculation of Income Tax:	Test Year		STAFF Recommended	
30	Revenue (Schedule AII-1, Col. [C], Line 5 & Sch. DWC-1, Col. [B], Line 10)	$ 5,088,340		$ 4,243,751	
31	Operating Expenses Excluding Income Taxes	$ 3,484,223		$ 3,484,223	
32	Synchronized Interest (L43)	$ 250,074		$ 250,074	
33	Arizona Taxable Income (L30 - L31 - L32)	$ 1,354,043		$ 509,454	
34	Arizona State Income Tax Rate	6.9680%		6.9680%	
35	Arizona Income Tax (L33 x L34)		$ 94,350		$ 35,499
36	Federal Taxable Income (L33 - L35)	$ 1,259,693		$ 473,955	
37	Federal Income Tax Rate	34.0000%		34.0000%	
38	Federal Income Tax (L36 x L37)		$ 428,296		$ 161,145
39	Combined Federal and State Income Tax (L35 + L38)		$ 522,645		$ 196,643
40	Applicable Federal Income Tax Rate (Col. [D], L38 - Col. [B], L38) / (Col. [C], L36 - Col. [A], L36)				34.0000%
	Calculation of Interest Synchronization:				
41	Rate Base (Schedule DWC-3, Col. [C], Line 17)	$ 8,713,382			
42	Weighted Average Cost of Debt	2.87%			
43	Synchronized Interest (L41 x L42)	$ 250,074			

ARIZONA-AMERICAN WATER COMPANY, INC. - SUN CITY WASTEWATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-3

SURREBUTTAL RATE BASE - ORIGINAL COST

LINE NO.		[A] COMPANY AS FILED	[B] STAFF ADJUSTMENTS	ADJ	[C] STAFF AS ADJUSTED
1	Plant in Service	$ 19,962,780	$ (69,319)	A	$ 19,893,461
2	Less: Accumulated Depreciation	7,189,539	(5,604)	B	7,183,935
3	Net Plant in Service	$ 12,773,241	$ (63,715)		$ 12,709,526
	LESS:				
4	Contributions in Aid of Construction (CIAC)	$ -	$ -		$ -
5	Less: Accumulated Amortization	-	-		-
6	Net CIAC	1,187,139	-		1,187,139
7	Advances in Aid of Construction (AIAC)	3,309,005	-		3,309,005
8	Customer Deposits	-	-		-
9	Meter Advances	-	-		-
10	Deferred Income Tax Credits	-	-		-
	ADD:				
11	Cash Working Capital	-	-		-
12	Prepayments	-	-		-
13	Supplies Inventory	-	-		-
14	Projected Capital Expenditures	-	-		-
15	Deferred Debits	-	-		-
16	Tolleson Trickling Filter	500,000	-		500,000
16	Citizens Acquisition Adjustment	5,264,640	(5,264,640)	C	-
17	Original Cost Rate Base	$ 14,041,737	$ (5,328,355)		$ 8,713,382

Adjustments:
A. Per plant adjustments on Surrebuttal Schedule DWC-4
B. Per accumulated depreciation adjustments on Surrebuttal Schedule DWC-4
C. Per acquisition adjustment on Surrebuttal Schedule DWC-4

References:
Column [A]: Company Schedule B-1
Column [B]: Staff Surrebuttal Schedule DWC-4
Column [C]: Column [A] + Column [B]

ARIZONA-AMERICAN WATER COMPANY, INC. - SUN CITY WASTEWATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-4

SURREBUTTAL SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS

LINE NO.	ACCT. NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] Plant-not used ADJ #1	[C] Plant-unidentified ADJ #2	[D] Plant Mis-Posted ADJ #3	[E] Plant Prev. Dec. ADJ #4	[F] Post-TY Pl. ADJ #5	[G] AFUDC Adj. ADJ #6	[H] Acquisition Adj ADJ #7	[I] STAFF ADJUSTED
		PLANT IN SERVICE:				Leave Blank	Leave Blank				
1		Intangible									
2	301.00	Organization	$ 122,373	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 122,373
3	302.00	Franchises	6,132	-	-	-	-	-	-	-	6,132
4	303.00	Miscellaneous Intangibles	10,495	-	(868)	-	-	-	-	-	9,627
5		Subtotal Intangible	139,000	-	(868)	-	-	-	-	-	138,132
6											
7		Treatment and Discharge									
8	310.00	Land & Land Rights	6,565	-	-	-	-	-	-	-	6,565
9	311.00	Structures & Improvements	42,195	-	-	-	-	11,337	-	-	53,532
10	312.00	Preliminary Treatment	453	-	-	-	-	-	-	-	453
11	313.00	Primary Treatment Eauipment	-	-	-	-	-	-	-	-	-
12	314.00	Secondary Treatment Equipment	2,575	-	-	-	-	-	-	-	2,575
13	315.00	Tertiary Equipment	-	-	-	-	-	-	-	-	-
14	316.00	Disfection Equipment	-	-	-	-	-	-	-	-	-
15	317.00	Effluent Lift Station E	1,503	-	-	-	-	-	-	-	1,503
16	318.00	Outfall Line	291	-	-	-	-	-	-	-	291
17	319.00	Sludge, Treatment & Distribution	-	-	-	-	-	-	-	-	-
18	321.00	Influent Lift Station	4,778	-	-	-	-	(4,310)	-	-	468
20	322.00	General Treatment Equipment	18,743	-	-	-	-	-	-	-	18,743
13		Subtotal Treatment & Discharge	77,103	-	-	-	-	7,027	-	-	84,130
14											
15		Collection and Influent	-								
16	340.00	Land & Land Rights		-	-	-	-	-	-	-	-
17	341.00	Structures & Improvements	350,713	-	-	-	-	-	-	-	350,713
18	342.00	Collection System Lift	1,229,723	-	-	-	-	-	-	-	1,229,723
19	343.00	Collection Mains	12,384,079	-	-	-	-	-	-	-	12,384,079
20	344.00	Force Mains	1,300,266	-	-	-	-	-	-	-	1,300,266
	345.00	Discharge Services	2,307,454	-	-	-	-	-	-	-	2,307,454
21	348.00	Manholes	-	-	-	-	-	-	-	-	-
22		Subtotal Collection and Influent	17,572,235	-	-	-	-	-	-	-	17,572,235
23											
42		General									
43	389.00	Land & Land Rights	1,108	-	-	-	-	-	-	-	1,108
44	390.00	Structures & Improvements	760,473	-	-	-	-	-	-	-	760,473
45	391.00	Office Furniture and Equipment	388,328	-	-	-	-	(23,238)	-	-	365,090
46	391.10	Computer Equipment	425,624	(134,421)	-	-	-	-	-	-	291,203
47	392.00	Transportation Equipment	408,123	-	-	-	-	-	-	-	408,123
48	393.00	Stores Equipment	6,523	-	-	-	-	-	-	-	6,523
49	394.00	Tools, Shop, & Garage Equipment	93,334	-	-	-	-	-	-	-	93,334
50	395.00	Laboratory Equipment	29,565	-	-	-	-	-	-	-	29,565
51	396.00	*Power Operated Equipment*	27,321	-	-	-	-	-	-	-	27,321
52	397.00	Communication Equipment	160,926	-	-	-	-	3,785	-	-	164,711
53	398.00	Miscellaneous Equipment	62,919	-	(14,679)	-	-	-	-	-	48,240
54		Subtotal General	2,364,244	(134,421)	(14,679)	-	-	(19,453)	-	-	2,195,691
55											
56		*Add:*		-	-	-	-	-	-	-	-
57				-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-
58		Less:	-	-	-	-	-	-	-	-	-
59		Youngtown Plant*	(96,727)	-	-	-	-	-	-	-	(96,727)
60		AFUDC Adjustment 3/95**	(93,075)	-	-	-	-	-	93,075	-	-
61		Total Plant in Service	$ 19,962,780	$ (134,421)	$ (15,547)	$ -	$ -	$ (12,426)	$ 93,075	$ -	$ 19,893,461
62		Less: Accumulated Depreciation	7,189,539	9,255	14,679	-	-	-	18,330	-	7,183,935
63		Net Plant in Service (L59 - L 60)	$ 12,773,241	$ (125,166)	$ (868)	$ -	$ -	$ (12,426)	$ 74,745	$ -	$ 12,709,526
64											
65		*LESS:*									
66		Contributions in Aid of Construction (CIAC)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
67		Less: Accumulated Amortization	-	-	-	-	-	-	-	-	-
68		Net CIAC (L25 - L26)	1,187,139	-	-	-	-	-	-	-	1,187,139
69		Advances in Aid of Construction (AIAC)	3,309,005	-	-	-	-	-	-	-	3,309,005
70		Customer Deposits	-	-	-	-	-	-	-	-	-
71		Meter Advances	-	-	-	-	-	-	-	-	-
72		Deferred Income Tax Credits	-	-	-	-	-	-	-	-	-
73											
74		*ADD:*									
75		Cash Working Capital Allowance	-	-	-	-	-	-	-	-	-
76		Prepayments	-	-	-	-	-	-	-	-	-
77		Supplies Inventory	-	-	-	-	-	-	-	-	-
78		Projected Capital Expenditures	-	-	-	-	-	-	-	-	-
79		Deferred Debits	-	-	-	-	-	-	-	-	-
80		*Tolleson Trickling Filter*	500,000	-	-	-	-	-	-	-	500,000
81		Citizens Acquisition Adjustment	5,264,640	-	-	-	-	-	-	(5,264,640)	-
82		Original Cost Rate Base	$ 14,041,737	$ (125,166)	$ (868)	$ -	$ -	$ (12,426)	$ 74,745	$ (5,264,640)	$ 8,713,382

ADJ #		References:
1	Plant - not used & useful	Per Staff Engineering Reports
2	Plant - unidentified	Per Staff Engineering Reports
3	Plant - mis-posted	Per Company Response to Staff Data Request BKB 26-3
4	Plant - removed by previous decision	Per Decision No. 60172
5	Post-Test Year Plant	Per Company Response to Staff Data Request DWC 12-2
6	Remove AFUDC Adj. 3/95	Per Company Response to Staff Data Request DWC 6-10 Amended
7	Remove Acquisition Adjustment	Per Carlson Direct Testimony

ARIZONA-AMERICAN WATER COMPANY, INC. - SUN CITY WASTEWATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule AII-1

SURREBUTTAL OPERATING INCOME STATEMENT - TEST YEAR AND STAFF PROPOSED

LINE NO.	DESCRIPTION	[A] COMPANY TEST YEAR AS FILED	[B] STAFF TEST YEAR ADJUSTMENTS	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF PROPOSED CHANGES	[E] STAFF RECOMMENDED
1	*REVENUES:*					
2	Flat Rate Revenues	$ 5,085,481	$ -	$ 5,085,481	$ (844,589)	$ 4,240,892
3	Measured Revenues	$ -	$ -	$ -	$ -	$ -
4	Other Wastewater Revenues	$ 2,859	$ -	$ 2,859	$ -	$ 2,859
5	Total Operating Revenues	$ 5,088,340	$ -	$ 5,088,340	$ (844,589)	$ 4,243,751
6						
7	*OPERATING EXPENSES:*					
8	Salaries & Wages	$ 160,653	$ 172,045	$ 332,698	$ -	$ 332,698
9	Purchased Wastewater Treatment	992,447	$ -	$ 992,447	$ -	$ 992,447
10	Purchased Power	1,509	$ 123	$ 1,632	$ -	$ 1,632
11	Fuel for Power Production	-	$ -	$ -	$ -	$ -
12	Chemicals	-	$ -	$ -	$ -	$ -
13	Materials and Supplies	-	$ 2,885	$ 2,885	$ -	$ 2,885
14	Repairs & Maintenance	-	$ -	$ -	$ -	$ -
15	Office Supplies & Expense	204,642	$ (204,642)	$ -	$ -	$ -
16	Outside Services	3,123	$ 28,996	$ 32,119	$ -	$ 32,119
17	Service Company Charges	522,586	$ (522,586)	$ -	$ -	$ -
18	Water Testing	-	$ -	$ -	$ -	$ -
19	Rents	21,265	$ -	$ 21,265	$ -	$ 21,265
20	Transportation Expense	-	$ -	$ -	$ -	$ -
21	Insurance - General Liability	36,400	$ 14,457	$ 50,857	$ -	$ 50,857
22	Insurance -Health and Life	-	$ -	$ -	$ -	$ -
23	Regulatory Comm. Exp. - Rate Case	33,583	$ -	$ 33,583	$ -	$ 33,583
24	Miscellaneous Operating Expense	145,130	$ 347,318	$ 492,448	$ -	$ 492,448
25	Depreciation Expense	514,852	$ (8,847)	$ 506,005	$ -	$ 506,005
26	Taxes Other Than Income	7,754	$ 17,118	$ 24,872	$ -	$ 24,872
27	Property Taxes	193,701	$ (18,380)	$ 175,321	$ -	$ 175,321
28	Income Tax	257,188	$ 265,457	$ 522,645	$ (326,002)	$ 196,643
29	Tolleson Wastewater User Fees	818,091	$ -	$ 818,091	$ -	$ 818,091
30						
31	Total Operating Expenses	$ 3,912,924	$ 93,944	$ 4,006,868	$ (326,002)	$ 3,680,867
32	Operating Income (Loss)	$ 1,175,416	$ (93,944)	$ 1,081,472	$ (518,587)	$ 562,884

References:
Column [A]: Company Schedule C-1
Column [B]: Surrebuttal Schedule AII-2
Column [C]: Column [A] + Column [B]
Column [D]: *Surrebuttal Schedules* DWC-1 and DWC-2
Column [E]: Column [C] + Column [D]

SCHEDULE AII-2

ARIZONA-AMERICAN WATER COMPANY, INC. - SUN CITY WASTEWATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

SURREBUTTAL SUMMARY OF OPERATING INCOME STATEMENT ADJUSTMENTS - TEST YEAR

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJ #1	[C] ADJ #2	[D] ADJ #3	[E] ADJ #4	[F] ADJ #5	[G] ADJ #6	[H] ADJ #7	[I] ADJ #8	[J] STAFF ADJUSTED
1	*REVENUES:*										
2	Flat Rate Revenues	$ 5,085,481	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,085,481
3	Measured Revenues	-	-	-	-	-	-	-	-	-	$ -
4	Other Wastewater Revenues	2,859	-	-	-	-	-	-	-	-	$ 2,859
5	Total Operating Revenues	$ 5,088,340	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,088,340
6											
7	*OPERATING EXPENSES:*										
8	Salaries & Wages	$ 160,653	$ -		$ (72,104)	$ 332,698	$ (88,549)	$ -	$ -	$ -	$ 332,698
9	Purchased Wastewater Treatment	992,447	-	-	-	-	-	-	-	-	$ 992,447
10	Purchased Power	1,509	123	-	-	-	-	-	-	-	$ 1,632
11	Fuel for Power Production	-	-	-	-	-	-	-	-	-	$ -
12	Chemicals	-	-	-	-	-	-	-	-	-	$ -
13	Materials and Supplies	-	2,885	-	-	-	-	-	-	-	$ 2,885
14	Repairs & Maintenance	-	-	-	-	-	-	-	-	-	$ -
15	Office Supplies & Expense	204,642	7,599	-	(212,241)	-	-	-	-	-	$ -
16	Outside Services	3,123	28,996	-	-	-	-	-	-	-	$ 32,119
17	Service Company Charges	522,586	-	(522,586)	-	-	-	-	-	-	$ -
18	Water Testing	-	-	-	-	-	-	-	-	-	$ -
19	Rents	21,265	-	-	-	-	-	-	-	-	$ 21,265
20	Transportation Expense	-	-	-	-	-	-	-	-	-	$ -
21	Insurance - General Liability	36,400	49,418	-	(34,961)	-	-	-	-	-	$ 50,857
22	Insurance -Health and Life	-	-	-	-	-	-	-	-	-	$ -
23	Regulatory Comm. Exp. - Rate Case	33,583	-	-	-	-	-	-	-	-	$ 33,583
24	Miscellaneous Operating Expense	145,130	348,567	-	(1,249)	-	-	-	-	-	$ 492,448
25	Depreciation Expense	514,852	-	-	-	-	-	(8,847)	-	-	$ 506,005
26	Taxes Other Than Income	7,754	-		-	24,872	(7,754)	-	-	-	$ 24,872
27	Property Taxes	193,701	-	-	-	-	-		$ (18,380)	-	$ 175,321
28	Income Tax	257,188	-	-	-	-	-	-	-	265,457	$ 522,645
29	Tolleson Wastewater User Fees	818,091	-	-	-	-	-	-	-	-	$ 818,091
30											
31	Total Operating Expenses	$ 3,912,924	$ 437,588	$ (522,586)	$ (320,555)	$ 357,570	$ (96,303)	$ (8,847)	$ (18,380)	$ 265,457	$ 4,006,868
32	Operating Income (Loss)	$ 1,175,416	$ (437,588)	$ 522,586	$ 320,555	$ (357,570)	$ 96,303	$ 8,847	$ 18,380	$ (265,457)	$ 1,081,472

ADJ #		References:
1	Citizens' Corporate Costs Allocation	Schedule AII-3
2	Service Company Charges	Schedule AII-4
3	Projected additional expenses	Schedule AII-5
4	Test Year Salaries, Wages & Related Expenses	Schedule AII-6
5	Projected Salaries, Wages & Related Expenses	Schedule AII-7
6	Depreciation Expense	Schedule AII-8
7	Property Taxes	Schedule AII-9
8	Income Taxes	Schedule AII-10

MOHAVE WATER

ARIZONA-AMERICAN WATER COMPANY, INC. - MOHAVE WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-1

SURREBUTTAL REVENUE REQUIREMENT

LINE NO.	DESCRIPTION	[A] STAFF RCND VALUE	[B] STAFF ORIGINAL COST	[C] STAFF FAIR VALUE
1	Adjusted Rate Base	$ 13,216,710	$ 9,577,221	$ 11,396,966
2	Adjusted Operating Income/(Loss)	$ 1,058,072	$ 1,058,072	$ 1,058,072
3	Current Rate of Return (L2 / L1)	8.01%	11.05%	9.28%
4	Required Rate of Return	4.7%	6.5%	5.4%
5	Required Operating Income (L4 x L1)	$ 618,688	$ 618,688	$ 618,688
6	Operating Income Deficiency/(Excess) (L5 - L2)	$ (439,383)	$ (439,383)	$ (439,383)
7	Gross Revenue Conversion Factor	1.62863	1.62863	1.62863
8	Required Revenue Increase/(Decrease) (L7 x L6)	$ (715,595)	$ (715,595)	$ (715,595)
9	Adjusted Test Year Revenue	$ 4,394,775	$ 4,394,775	$ 4,394,775
10	Proposed Annual Revenue (L8 + L9)	$ 3,679,180	$ 3,679,180	$ 3,679,180
11	Required Increase/Decrease in Revenue (%)	-16.28%	-16.28%	-16.28%
12	Rate of Return on Common Equity (%)	9.0%	9.0%	9.0%

References:

Columns [A], [B], & [C]: Staff Schedules AII-1, DWC-2, DWC-3, & JMR-S8

ARIZONA-AMERICAN WATER COMPANY, INC. - MOHAVE WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-2

SURREBUTTAL GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	[A]	[B]	[C]	[D]
	Calculation of Gross Revenue Conversion Factor:				
1	Billings	100.0000%			
2	Uncollecible Factor (Line 11)	0.0000%			
3	Revenues (L1 - L2)	100.0000%			
4	Combined Federal and State Tax Rate (Line 17)	38.5989%			
5	Subtotal (L3 - L4)	61.4011%			
6	Revenue Conversion Factor (L1 / L5)	1.628635			
	Calculation of Uncollecttible Factor:				
7	Unity	100.0000%			
8	Combined Federal and State Tax Rate (Line 17)	38.5989%			
9	One Minus Combined Income Tax Rate (L7 - L8)	61.4011%			
10	Uncollectible Rate	0.0000%			
11	Uncollectible Factor (L9 x L10)	0.0000%			
	Calculation of Effective Tax Rate:				
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%			
13	Arizona State Income Tax Rate	6.9680%			
14	Federal Taxable Income (L12 - L13)	93.0320%			
15	Applicable Federal Income Tax Rate (Line 40)	34.0000%			
16	Effective Federal Income Tax Rate (L14 x L15)	31.6309%			
17	Combined Federal and State Income Tax Rate (L13 + L16)	38.5989%			
18	Required Operating Income (Schedule DWC-1,Col. [B], Line 5)	$ 618,688			
19	Adjusted Test Year Operating Income (Loss) (Sch. AII-1, Col. [C], Line 28)	$ 1,058,072			
20	Required Increase in Operating Income (L18 - L19)		$ (439,383)		
21	Income Taxes on Recommended Revenue (Col. [D], L39)	$ 216,139			
22	Income Taxes on Test Year Revenue (Col. [B], L39)	$ 492,351			
23	Required Increase in Revenue to Provide for Income Taxes (L21 - L22)		$ (276,212)		
24	Recommended Revenue Requirement (Schedule DWC-1, Col. [B], Line 10)	$ 3,679,180			
25	Uncollectible Rate (Line 10)	0.0000%			
26	Uncollectible Expense on Recommended Revenue (L24 x L25)	$ -			
27	Adjusted Test Year Uncollectible Expense	$ -			
28	Required Increase in Revenue to Provide for Uncollectible Exp. (L26 - L27)		$ -		
29	Total Required Increase in Revenue (L20 + L23 + L28)		$ (715,595)		
	Calculation of Income Tax:	Test Year		STAFF Recommended	
30	Revenue (Schedule AII-1, Col. [C], Line 5 & Sch. DWC-1, Col. [B], Line 10)	$ 4,394,775		$ 3,679,180	
31	Operating Expenses Excluding Income Taxes	$ 2,844,352	$ -	$ 2,844,352	
32	Synchronized Interest (L43)	$ 274,866		$ 274,866	
33	Arizona Taxable Income (L30 - L31 - L32)	$ 1,275,557		$ 559,962	
34	Arizona State Income Tax Rate	6.9680%		6.9680%	
35	Arizona Income Tax (L33 x L34)		$ 88,881		$ 39,018
36	Federal Taxable Income (L33 - L35)	$ 1,186,676		$ 520,943	
37	Federal Income Tax Rate	34.0000%		34.0000%	
38	Federal Income Tax (L36 x L37)		$ 403,470		$ 177,121
39	Combined Federal and State Income Tax (L35 + L38)		$ 492,351		$ 216,139
40	Applicable Federal Income Tax Rate(Col. [D], L38 - Col. [B], L38) / (Col. [C], L36 - Col. [A], L36)				34.0000%
	Calculation of Interest Synchronization:				
41	Rate Base (Schedule DWC-3, Col. [C], Line 17)	$ 9,577,221			
42	Weighted Average Cost of Debt	2.87%			
43	Synchronized Interest (L41 x L42)	$ 274,866			

ARIZONA-AMERICAN WATER COMPANY, INC. - MOHAVE WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-3

SURREBUTTAL RATE BASE - ORIGINAL COST

LINE NO.		[A] COMPANY AS FILED	[B] STAFF ADJUSTMENTS	ADJ	[C] STAFF AS ADJUSTED
1	Plant in Service	$ 23,833,079	$ (100,878)	A	$ 23,732,201
2	Less: Accumulated Depreciation	7,852,645	(93,363)	B	7,759,282
3	Net Plant in Service	$ 15,980,434	$ (7,515)		$ 15,972,919
	LESS:				
4	Contributions in Aid of Construction (CIAC)	$ -	$ -		$ -
5	Less: Accumulated Amortization	-	-		-
6	Net CIAC	2,825,809	-		2,825,809
7	Advances in Aid of Construction (AIAC)	3,462,178	-		3,462,178
8	Customer Deposits	-	-		-
9	Meter Advances	107,711	-		107,711
10	Deferred Income Tax Credits	-	-		-
	ADD:				
11	Cash Working Capital	-	-		-
12	Prepayments	-	-		-
13	Supplies Inventory	-	-		-
14	Projected Capital Expenditures	-	-		-
15	Deferred Debits	-	-		-
16	Citizens Acquisition Adjustment	6,121,931	(6,121,931)	C	-
17	Original Cost Rate Base	$ 15,706,667	$ (6,129,446)		$ 9,577,221

Adjustments:
A. Per plant adjustments on Surrebuttal Schedule DWC-4
B. Per accumulated depreciation adjustments on Surrebuttal Schedule DWC-4
C. Per acquisition adjustment on Surrebuttal Schedule DWC-4

References:
Column [A]: Company Schedule B-1
Column [B]: Staff Surrebuttal Schedule DWC-4
Column [C]: Column [A] + Column [B]

SURREBUTTAL SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS

LINE NO.	ACCT. NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] Plant-not used ADJ #1	[C] Plant-unidentified ADJ #2	[D] Plant Mis-Posted ADJ #3	[E] Plant Prev. Dec. ADJ #4	[F] Post-TY Pl. ADJ #5	[G] AFUDC Adj. ADJ #6	[H] Acquisition Adj ADJ #7	[I] STAFF ADJUSTED
				Leave Blank		Leave Blank	Leave Blank		Leave Blank		
		PLANT IN SERVICE:									
1		Intangible									
2	301.00	Organization	$ 34,004	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 34,004
3	302.00	Franchises	37,061	-	-	-	-	-	-	-	37,061
4	303.00	Miscellaneous Intangibles	-	-	-	-	-	-	-	-	-
5		Subtotal Intangible	71,065	-	-	-	-	-	-	-	71,065
6											
7		Source of Supply									
8	310.00	Land & Land Rights	261,542	-	(63,719)	-	-	11,225	-	-	209,048
9	311.00	Structures & Improvements	643,073	-	-	-	-	55,633	-	-	698,706
10	312.00	Collecting & Impounding Reservoirs	663,944	-	-	-	-	-	-	-	663,944
11	313.00	Lakes, Rivers, Other Intakes	-	-	-	-	-	-	-	-	-
12	314.00	Wells and Springs	802,320	-	(37,111)	-	-	(11,000)	-	-	754,209
13		Subtotal Source of Supply	2,370,879	-	(100,830)	-	-	55,858	-	-	2,325,907
14											
15		Pumping									
16	320.00	Land & Land Rights	2,361	-	-	-	-	-	-	-	2,361
17	321.00	Structures & Improvements	1,687	-	-	-	-	-	-	-	1,687
18	323.00	Other Power Production	-	-	-	-	-	-	-	-	-
19	325.00	Electric Pumping Equipment	1,708,531	-	-	-	-	146,092	-	-	1,854,623
20	326.00	Diesel Pumping Equipment	-	-	-	-	-	-	-	-	-
21	328.10	Gas Engine Pumping Equipment	-	-	-	-	-	-	-	-	-
22		Subtotal Pumping	1,712,579	-	-	-	-	146,092	-	-	1,858,671
23											
24		Water Treatment									
25	330.00	Land & Land Rights	409,500	-	-	-	-	(12,699)	-	-	396,801
26	331.00	Structures & Improvements	15,157	-	-	-	-	-	-	-	15,157
27	332.00	Water Treatment Equipment	49,196	-	-	-	-	1,674	-	-	50,870
28		Subtotal Water Treatment	473,853	-	-	-	-	(11,025)	-	-	462,828
29											
30		Transmission & Distribution									
31	340.00	Land & Land Rights	9,609	-	-	-	-	-	-	-	9,609
32	341.00	Structures & Improvements	4,583	-	-	-	-	-	-	-	4,583
33	342.00	Distribution Reservoirs & Standpipes	1,189,528	-	(96,020)	-	-	-	-	-	1,093,508
34	343.00	Transmission & Distribution	11,691,493	-	-	-	-	(30,000)	-	-	11,661,493
35	344.00	Fire Mains	-	-	-	-	-	-	-	-	-
36	345.00	Services	2,863,818	-	-	-	-	-	-	-	2,863,818
37	346.00	Meters	1,825,558	-	-	-	-	-	-	-	1,825,558
38	348.00	Hydrants	-	-	-	-	-	-	-	-	-
39	349.00	Other Transmission & Distribution	-	-	-	-	-	-	-	-	-
40		Subtotal Transmission & Distribu.	17,584,589	-	(96,020)	-	-	(30,000)	-	-	17,458,569
41											
42		General - Allocated Common Plant									
43	389.00	Land & Land Rights	293	-	-	-	-	-	-	-	293
44	390.00	Structures & Improvements	89,251	-	(37,142)	-	-	(23,400)	-	-	28,709
45	391.00	*Office Furniture and Equipment*	313,106	-	-	-	-	(11,960)	-	-	301,146
46	391.10	Computer Equipment	353,433	-	-	-	-	-	-	-	353,433
47	392.00	Transportation Equipment	542,457	-	-	-	-	3,678	-	-	546,135
48	393.00	Stores Equipment	2,865	-	-	-	-	-	-	-	2,865
49	394.00	Tools, Shop, & Garage Equipment	118,742	-	-	-	-	821	-	-	119,563
50	395.00	Laboratory Equipment	7,277	-	-	-	-	-	-	-	7,277
51	396.00	Power Operated Equipment	71,294	-	-	-	-	-	-	-	71,294
52	397.00	Communication Equipment	110,560	-	-	-	-	3,050	-	-	113,610
53	398.00	Miscellaneous Equipment	10,836	-	-	-	-	-	-	-	10,836
54		Subtotal General	1,620,114	-	(37,142)	-	-	(27,811)	-	-	1,555,161
55											
56		Add:									-
57											-
58		Less:									-
59				-	-	-	-	-	-	-	-
60				-	-	-	-	-	-	-	-
61		Total Plant in Service	$ 23,833,079	$ -	$ (233,992)	$ -	$ -	$ 133,114	$ -	$ -	$ 23,732,201
62		Less: Accumulated Depreciation	7,852,645	-	93,363	-	-	-	-	-	7,759,282
63		Net Plant in Service (L59 - L 60)	$ 15,980,434	$ -	$ (140,629)	$ -	$ -	$ 133,114	$ -	$ -	$ 15,972,919
64											
65		*LESS:*									
66		Contributions in Aid of Construction (CIAC)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
67		Less: Accumulated Amortization	-	-	-	-	-	-	-	-	-
68		Net CIAC (L25 - L26)	2,825,809	-	-	-	-	-	-	-	2,825,809
69		Advances in Aid of Construction (AIAC)	3,462,178	-	-	-	-	-	-	-	3,462,178
70		Customer Deposits	-	-	-	-	-	-	-	-	-
71		Meter Advances	107,711	-	-	-	-	-	-	-	107,711
72		Deferred Income Tax Credits	-	-	-	-	-	-	-	-	-
73											
74		*ADD:*									
75		Cash Working Capital Allowance	-	-	-	-	-	-	-	-	-
76		Prepayments	-	-	-	-	-	-	-	-	-
77		Supplies Inventory	-	-	-	-	-	-	-	-	-
78		Projected Capital Expenditures	-	-	-	-	-	-	-	-	-
79		Deferred Debits	-	-	-	-	-	-	-	-	-
80		Citizens Acquisition Adjustment	6,121,931	-	-	-	-	-	-	(6,121,931)	-
81		Original Cost Rate Base	$ 15,706,667	$ -	$ (140,629)	$ -	$ -	$ 133,114	$ -	$ (6,121,931)	$ 9,577,221

ADJ #		References:
1	Plant - not used & useful	Per Staff Engineering Reports
2	Plant - unidentified	Per Staff Engineering Reports
3	Plant - mis-posted	Per Company Response to Staff Data Request BKB 26-3
4	Plant - removed by previous decision	Per Decision No. 60172
5	Post-Test Year Plant	Per Company Response to Staff Data Request DWC 12-2
6	Remove AFUDC Adj. 3/95	Per Company Response to Staff Data Request DWC 6-10 Amended
7	Remove Acquisition Adjustment	Per Carlson Direct Testimony

ARIZONA-AMERICAN WATER COMPANY, INC. - MOHAVE WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

SCHECULE AII-1

SURREBUTTAL OPERATING INCOME STATEMENT - TEST YEAR AND STAFF PROPOSED

LINE NO.	DESCRIPTION	[A] COMPANY TEST YEAR AS FILED	[B] STAFF TEST YEAR ADJUSTMENTS	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF PROPOSED CHANGES	[E] STAFF RECOMMENDED
1	*REVENUES:*					
2	Metered Water Sales	$ 4,286,070	$ -	$ 4,286,070	$ (715,595)	$ 3,570,475
3	Water Sales - Unmetered	-	-	-	-	-
4	Other Operating Revenue	108,705	-	108,705	-	108,705
5	Total Operating Revenues	$ 4,394,775	$ -	$ 4,394,775	$ (715,595)	$ 3,679,180
6						
7	*OPERATING EXPENSES:*					
8	Salaries & Wages	$ 844,087	$ (229,804)	$ 614,283	$ -	$ 614,283
9	Purchased Water	5,040	-	5,040	-	5,040
10	Purchased Pumping Power	294,603	76	294,679	-	294,679
11	Chemicals	8,150	(26,286)	(18,136)	-	(18,136)
12	Repairs & Maintenance	301,313	-	301,313	-	301,313
13	Office Supplies & Expense	249,611	(129,247)	120,364	-	120,364
14	Outside Services	5,177	35,042	40,219	-	40,219
15	Service Company Charges	521,040	(521,040)	-	-	-
16	Water Testing	-	-	-	-	-
17	Rents	18,307	-	18,307	-	18,307
18	Transportation Expense	-	-	-	-	-
19	Insurance - General Liability	27,385	42,838	70,223	-	70,223
20	Insurance - Health and Life	-	-	-	-	-
21	Regulatory Comm. Exp. - Rate Case	29,013	-	29,013	-	29,013
22	Miscellaneous Operating Expense	83,386	339,176	422,562	-	422,562
23	Depreciation Expense	692,199	(23,310)	668,889	-	668,889
24	Taxes Other Than Income	47,563	(9,622)	37,941	-	37,941
25	Property Taxes	272,584	(32,929)	239,655	-	239,655
26	Income Tax	199,240	293,111	492,351	(276,212)	216,139
27						
28	Total Operating Expenses	$ 3,598,698	$ (261,995)	$ 3,336,703	$ (276,212)	$ 3,060,491
29	Operating Income (Loss)	$ 796,077	$ 261,995	$ 1,058,072	$ (439,383)	$ 618,689

References:
Column [A]: Company Schedule C-1
Column [B]: Surrebuttal Schedule AII-2
Column [C]: Column [A] + Column [B]
Column [D]: Surrebuttal Schedules DWC-1 and DWC-2
Column [E]: Column [C] + Column [D]

SCHECULE AII-2

ARIZONA-AMERICAN WATER COMPANY, INC. - MOHAVE WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

SURREBUTTAL SUMMARY OF OPERATING INCOME STATEMENT ADJUSTMENTS - TEST YEAR

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJ #1	[C] ADJ #2	[D] ADJ #3	[E] ADJ #4	[F] ADJ #5	[G] ADJ #6	[H] ADJ #7	[I] ADJ #8	[J] STAFF ADJUSTED
1	*REVENUES:*										
2	Metered Water Sales	$ 4,286,070	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,286,070
3	Water Sales - Unmetered	-	-	-	-	-	-	-	-	-	-
4	Other Operating Revenue	108,705	-	-	-	-	-	-	-	-	108,705.0
5	Total Operating Revenues	$ 4,394,775	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,394,775
6											
7	*OPERATING EXPENSES:*										
8	Salaries & Wages	$ 844,087	$ -		$ (270,391)	$ 614,283	$ (573,696)	$ -	$ -	$ -	$ 614,283
9	Purchased Water	5,040	-	-	-	-	-	-	-	-	5,040
10	Purchased Pumping Power	294,603	76	-	-	-	-	-	-	-	294,679
11	Chemicals	8,150	-	-	(26,286)	-	-	-	-	-	(18,136)
12	Repairs & Maintenance	301,313	-	-	-	-	-	-	-	-	301,313
13	Office Supplies & Expense	249,611	18,092	-	(147,339)	-	-	-	-	-	120,364
14	Outside Services	5,177	35,042	-	-	-	-	-	-	-	40,219
15	Service Company Charges	521,040	-	(521,040)		-	-	-	-	-	-
16	Water Testing	-	-	-	-	-	-	-	-	-	-
17	Rents	18,307	-	-	-	-	-	-	-	-	18,307
18	Transportation Expense	-	-	-	-	-	-	-	-	-	-
19	Insurance - General Liability	27,385	42,838	-	-	-	-	-	-	-	70,223
20	Insurance -Health and Life	-	-	-	-	-	-	-	-	-	-
21	Regulatory Comm. Exp. - Rate Case	29,013	-	-	-	-	-	-	-	-	29,013
22	Miscellaneous Operating Expense	83,386	340,594	-	(1,418)	-	-	-	-	-	422,562
23	Depreciation Expense	692,199	-	-	-	-	-	(23,310)	-	-	668,889
24	Taxes Other Than Income	47,563	-	-	-	37,941	(47,563)	-	-	-	37,941
25	Property Taxes	272,584	-	-	-	-	-	-	(32,929)	-	239,655
26	Income Tax	199,240	-	-	-	-	-	-	-	293,111	492,351
27											
28	Total Operating Expenses	$ 3,598,698	$ 436,643	$ (521,040)	$ (445,434)	$ 652,224	$ (621,259)	$ (23,310)	$ (32,929)	$ 293,111	$ 3,336,703
29	Operating Income (Loss)	$ 796,077	$ (436,643)	$ 521,040	$ 445,434	$ (652,224)	$ 621,259	$ 23,310	$ 32,929	$ (293,111)	$ 1,058,072

ADJ #		References:
1	Citizens, Corporate Costs Allocation	Schedule AII-3
2	Service Company Charges	Schedule AII-4
3	Projected additional expenses	Schedule AII-5
4	Test Year Salaries, Wages & Related Expenses	Schedule AII-6
5	Projected Salaries, Wages & Related Expenses	Schedule AII-7
6	Depreciation Expense	Schedule AII-8
7	Property Taxes	Schedule AII-9
8	Income Taxes	Schedule AII-10

HAVASU WATER

ARIZONA-AMERICAN WATER COMPANY, INC. - HAVASU WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-1

SURREBUTTAL REVENUE REQUIREMENT

LINE NO.	DESCRIPTION		[A] STAFF RCND VALUE		[B] STAFF ORIGINAL COST		[C] STAFF FAIR VALUE
1	Adjusted Rate Base	$	1,142,665	$	822,117	$	982,391
2	Adjusted Operating Income/(Loss)	$	73,432	$	73,432	$	73,432
3	Current Rate of Return (L2 / L1)		6.43%		8.93%		7.47%
4	Required Rate of Return		4.6%		6.5%		5.4%
5	Required Operating Income (L4 x L1)	$	53,109	$	53,109	$	53,109
6	Operating Income Deficiency/(Excess) (L5 - L2)	$	(20,324)	$	(20,324)	$	(20,324)
7	Gross Revenue Conversion Factor		1.62863		1.62863		1.62863
8	Required Revenue Increase/(Decrease) (L7 x L6)	$	(33,100)	$	(33,100)	$	(33,100)
9	Adjusted Test Year Revenue	$	440,924	$	440,924	$	440,924
10	Proposed Annual Revenue (L8 + L9)	$	407,824	$	407,824	$	407,824
11	Required Increase/Decrease in Revenue (%)		-7.51%		-7.51%		-7.51%
12	Rate of Return on Common Equity (%)		9.0%		9.0%		9.0%

References:

Columns [A], [B], & [C]: Staff Surrebuttal Schedules AII-1, DWC-2, DWC-3, & JMR-S8

ARIZONA-AMERICAN WATER COMPANY, INC. - HAVASU WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-2

SURREBUTTAL GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	[A]	[B]	[C]	[D]
	Calculation of Gross Revenue Conversion Factor:				
1	Billings	100.0000%			
2	Uncollecible Factor (Line 11)	0.0000%			
3	Revenues (L1 - L2)	100.0000%			
4	Combined Federal and State Tax Rate (Line 17)	38.5989%			
5	Subtotal (L3 - L4)	61.4011%			
6	Revenue Conversion Factor (L1 / L5)	1.628635			
	Calculation of Uncollecttible Factor:				
7	Unity	100.0000%			
8	Combined Federal and State Tax Rate (Line 17)	38.5989%			
9	One Minus Combined Income Tax Rate (L7 - L8)	61.4011%			
10	Uncollectible Rate	0.0000%			
11	Uncollectible Factor (L9 x L10)	0.0000%			
	Calculation of Effective Tax Rate:				
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%			
13	Arizona State Income Tax Rate	6.9680%			
14	Federal Taxable Income (L12 - L13)	93.0320%			
15	Applicable Federal Income Tax Rate (Line 40)	34.0000%			
16	Effective Federal Income Tax Rate (L14 x L15)	31.6309%			
17	Combined Federal and State Income Tax Rate (L13 + L16)	38.5989%			
18	Required Operating Income (Schedule DWC-1, Col. [B], Line 5)	$ 53,109			
19	Adjusted Test Year Operating Income (Loss) (Sch. AII-1, Col. [C], Line 28)	$ 73,432			
20	Required Increase in Operating Income (L18 - L19)		$ (20,324)		
21	Income Taxes on Recommended Revenue (Col. [D], L39)	$ 18,554			
22	Income Taxes on Test Year Revenue (Col. [B], L39)	$ 31,330			
23	Required Increase in Revenue to Provide for Income Taxes (L21 - L22)		$ (12,776)		
24	Recommended Revenue Requirement (Schedule DWC-1, Col. [B], Line 10)	$ 407,824			
25	Uncollectible Rate (Line 10)	0.0000%			
26	Uncollectible Expense on Recommended Revenue (L24 x L25)	$ -			
27	Adjusted Test Year Uncollectible Expense	$ -			
28	Required Increase in Revenue to Provide for Uncollectible Exp. (L26 - L27)		$ -		
29	Total Required Increase in Revenue (L20 + L23 + L28)		$ (33,100)		
	Calculation of Income Tax:	Test Year		STAFF Recommended	
30	Revenue (Schedule AII-1, Col. [C], Line 5 & Sch. DWC-1, Col. [B], Line 10)	$ 440,924		$ 407,824	
31	Operating Expenses Excluding Income Taxes	$ 336,162	$ -	$ 336,162	
32	Synchronized Interest (L43)	$ 23,595		$ 23,595	
33	Arizona Taxable Income (L30 - L31 - L32)	$ 81,168		$ 48,068	
34	Arizona State Income Tax Rate	6.9680%		6.9680%	
35	Arizona Income Tax (L33 x L34)		$ 5,656		$ 3,349
36	Federal Taxable Income (L33 - L35)	$ 75,512		$ 44,718	
37	Federal Income Tax Rate	34.0000%		34.0000%	
38	Federal Income Tax (L36 x L37)		$ 25,674		$ 15,204
39	Combined Federal and State Income Tax (L35 + L38)		$ 31,330		$ 18,554
40	Applicable Federal Income Tax Rate (Col. [D], L38 - Col. [B], L38) / (Col. [C], L36 - Col. [A], L36)				34.0000%
	Calculation of Interest Synchronization:				
41	Rate Base (Schedule DWC-3, Col. [C], Line 17)	$ 822,117			
42	Weighted Average Cost of Debt	2.87%			
43	Synchronized Interest (L41 x L42)	$ 23,595			

ARIZONA-AMERICAN WATER COMPANY, INC. - HAVASU WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-3

SURREBUTTAL RATE BASE - ORIGINAL COST

LINE NO.		[A] COMPANY AS FILED	[B] STAFF ADJUSTMENTS	ADJ	[C] STAFF AS ADJUSTED
1	Plant in Service	$ 2,165,406	$ (95,241)	A	$ 2,070,165
2	Less: Accumulated Depreciation	555,531	(18,120)	B	537,411
3	Net Plant in Service	$ 1,609,875	$ (77,121)		$ 1,532,754
	LESS:				
4	Contributions in Aid of Construction (CIAC)	$ -	$ -		$ -
5	Less: Accumulated Amortization	-	-		-
6	Net CIAC	280,867	-		280,867
7	Advances in Aid of Construction (AIAC)	418,704	-		418,704
8	Customer Deposits	-	-		-
9	Meter Advances	11,066	-		11,066
10	Deferred Income Tax Credits	-	-		-
	ADD:				
11	Cash Working Capital	-	-		-
12	Prepayments	-	-		-
13	Supplies Inventory	-	-		-
14	Projected Capital Expenditures	-	-		-
15	Deferred Debits	-	-		-
16	Citizens Acquisition Adjustment	523,302	(523,302)	C	-
17	Original Cost Rate Base	$ 1,422,540	$ (600,423)		$ 822,117

Adjustments:
A. Per plant adjustments on Surrebuttal Schedule DWC-4
B. Per accumulated depreciation adjustments on Surrebuttal Schedule DWC-4
C. Per acquisition adjustment on Surrebuttal Schedule DWC-4

References:
Column [A]: Company Schedule B-1
Column [B]: Staff Surrebuttal Schedule DWC-4
Column [C]: Column [A] + Column [B]

ARIZONA-AMERICAN WATER COMPANY, INC. - HAVASU WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-4

SURREBUTTAL SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS

LINE NO.	ACCT. NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] Plant-not used ADJ #1	[C] Plant-unidentified ADJ #2	[D] Plant Mis-Posted ADJ #3	[E] Plant Prev. Dec. ADJ #4	[F] Post-TY Pl. ADJ #5	[G] AFUDC Adj. ADJ #6	[H] Acquisition Adj ADJ #7	[I] STAFF ADJUSTED
		PLANT IN SERVICE:			Leave Blank	Leave Blank	Leave Blank		Leave Blank		
1		Intangible									
2	301.00	Organization	$ 10,144	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,144
3	302.00	Franchises	-	-	-	-	-	-	-	-	-
4	303.00	Miscellaneous Intangibles	-	-	-	-	-	-	-	-	-
5		Subtotal Intangible	10,144	-	-	-	-	-	-	-	10,144
6											
7		Source of Supply									
8	310.00	Land & Land Rights	12,245	(5,746)	-	-	-	1,272	-	-	7,771
9	311.00	Structures & Improvements	53,877	(401)	-	-	-	10,287	-	-	63,763
10	312.00	Collecting & Impounding Reservoirs	148,253	-	-	-	-	-	-	-	148,253
11	313.00	Lakes, Rivers, Other Intakes	-	-	-	-	-	-	-	-	-
12	314.00	Wells and Springs	107,017	(70,928)	-	-	-	-	-	-	36,089
13		Subtotal Source of Supply	321,392	(77,075)	-	-	-	11,559	-	-	255,876
14											
15		Pumping									
16	320.00	Land & Land Rights	-	-	-	-	-	-	-	-	-
17	321.00	Structures & Improvements	-	-	-	-	-	-	-	-	-
18	323.00	Other Power Production	22,738	-	-	-	-	-	-	-	22,738
19	325.00	Electric Pumping Equipment	254,974	(244)	-	-	-	-	-	-	254,730
20	326.00	Diesel Pumping Equipment	-	-	-	-	-	-	-	-	-
21	328.10	Gas Engine Pumping Equipment	-	-	-	-	-	-	-	-	-
22		Subtotal Pumping	277,712	(244)	-	-	-	-	-	-	277,468
23											
24		Water Treatment									
25	330.00	Land & Land Rights	-	-	-	-	-	-	-	-	-
26	331.00	Structures & Improvements	-	-	-	-	-	-	-	-	-
27	332.00	Water Treatment Equipment	25,315	-	-	-	-	-	-	-	25,315
28		*Subtotal Water Treatment*	25,315	-	-	-	-	-	-	-	25,315
29											
30		Transmission & Distribution									
31	340.00	Land & Land Rights	-	-	-	-	-	-	-	-	-
32	341.00	Structures & Improvements	-	-	-	-	-	-	-	-	-
33	342.00	Distribution Reservoirs & Standpipes	270,085	-	-	-	-	(44,214)	-	-	225,871
34	343.00	Transmission & Distribution	752,886	-	-	-	-	21,141	-	-	774,027
35	344.00	Fire Mains	-	-	-	-	-	-	-	-	-
36	345.00	Services	182,275	-	-	-	-	-	-	-	182,275
37	346.00	Meters	176,386	-	-	-	-	-	-	-	176,386
38	348.00	Hydrants	-	-	-	-	-	-	-	-	-
39	349.00	Other Transmission & Distribution	-	-	-	-	-	-	-	-	-
40		Subtotal Transmission & Distribu.	1,381,632	-	-	-	-	(23,073)	-	-	1,358,559
41											
42		General - Allocated Common Plant									
43	389.00	Land & Land Rights	25	-	-	-	-	-	-	-	25
44	390.00	Structures & Improvements	10,577	-	-	-	-	-	-	-	10,577
45	391.00	Office Furniture and Equipment	31,793	-	-	-	-	(9,348)	-	-	22,445
46	391.10	Computer Equipment	33,449	-	-	-	-	-	-	-	33,449
47	392.00	Transportation Equipment	45,234	-	-	-	-	-	-	-	45,234
48	393.00	Stores Equipment	247	-	-	-	-	-	-	-	247
49	394.00	Tools, Shop, & Garage Equipment	10,104	-	-	-	-	-	-	-	10,104
50	395.00	Laboratory Equipment	627	-	-	-	-	-	-	-	627
51	396.00	Power Operated Equipment	8,744	-	-	-	-	2,940	-	-	11,684
52	397.00	Communication Equipment	7,477	-	-	-	-	-	-	-	7,477
53	398.00	Miscellaneous Equipment	934	-	-	-	-	-	-	-	934
54		Subtotal General	149,211	-	-	-	-	(6,408)	-	-	142,803
55											
56		Add:									-
57											-
58		Less:									-
59				-	-	-	-	-	-	-	-
60				-	-	-	-	-	-	-	-
61		Total Plant in Service	$ 2,165,406	$ (77,319)	$ -	$ -	$ -	$ (17,922)	$ -	$ -	$ 2,070,165
62		Less: Accumulated Depreciation	555,531	18,120	-	-	-	-	-	-	537,411
63		Net Plant in Service (L59 - L 60)	$ 1,609,875	$ (59,199)	$ -	$ -	$ -	$ (17,922)	$ -	$ -	$ 1,532,754
64											
65		*LESS:*									
66		Contributions in Aid of Construction (CIAC)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
67		Less: Accumulated Amortization	-	-	-	-	-	-	-	-	-
68		Net CIAC (L25 - L26)	280,867	-	-	-	-	-	-	-	280,867
69		Advances in Aid of Construction (AIAC)	418,704	-	-	-	-	-	-	-	418,704
70		*Customer Deposits*	-	-	-	-	-	-	-	-	-
71		Meter Advances	11,066	-	-	-	-	-	-	-	11,066
72		Deferred Income Tax Credits	-	-	-	-	-	-	-	-	-
73											
74		*ADD:*									
75		Cash Working Capital Allowance	-	-	-	-	-	-	-	-	-
76		Prepayments	-	-	-	-	-	-	-	-	-
77		Supplies Inventory	-	-	-	-	-	-	-	-	-
78		Projected Capital Expenditures	-	-	-	-	-	-	-	-	-
79		Deferred Debits	-	-	-	-	-	-	-	-	-
80		Citizens Acquisition Adjustment	523,302	-	-	-	-	-	-	(523,302)	-
81		Original Cost Rate Base	$ 1,422,540	$ (59,199)	$ -	$ -	$ -	$ (17,922)	$ -	$ (523,302)	$ 822,117

ADJ #		References:
1	Plant - not used & useful	Per Staff Engineering Reports
2	Plant - unidentified	Per Staff Engineering Reports
3	Plant - mis-posted	Per Company Response to Staff Data Request BKB 26-3
4	Plant - removed by previous decision	Per Decision No. 60172
5	Post-Test Year Plant	Per Company Response to Staff Data Request DWC 12-2
6	Remove AFUDC Adj. 3/95	Per Company Response to Staff Data Request DWC 6-10 Amended
7	Remove Acquisition Adjustment	Per Carlson Direct Testimony

ARIZONA-AMERICAN WATER COMPANY, INC. - HAVASU WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

SCHEDULE AII-1

SURREBUTTAL OPERATING INCOME STATEMENT - TEST YEAR AND STAFF PROPOSED

LINE NO.	DESCRIPTION	[A] COMPANY TEST YEAR AS FILED	[B] STAFF TEST YEAR ADJUSTMENTS	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF PROPOSED CHANGES	[E] STAFF RECOMMENDED
1	*REVENUES:*					
2	Metered Water Sales	$ 430,392	$ -	$ 430,392	$ (33,100)	$ 397,292
3	Water Sales - Unmetered	-	-	-	-	-
4	Other Operating Revenue	10,532	-	10,532	-	10,532
5	Total Operating Revenues	$ 440,924	$ -	$ 440,924	$ (33,100)	$ 407,824
6	*OPERATING EXPENSES:*					
7	Salaries & Wages	$ 171,419	(111,573)	$ 59,846	$ -	$ 59,846
8	Purchased Water	806	-	806	-	806
9	Purchased Pumping Power	47,018	120	47,138	-	47,138
10	Chemicals	1,266	(2,365)	(1,099)	-	(1,099)
11	Repairs & Maintenance	75,805	-	75,805	-	75,805
12	Office Supplies & Expense	21,243	(11,350)	9,893	-	9,893
13	Outside Services	2,462	11,247	13,709	-	13,709
14	Service Company Charges	75,244	(75,244)	-	-	-
15	Water Testing	-	-	-	-	-
16	Rents	1,837	-	1,837	-	1,837
17	Transportation Expense	-	-	-	-	-
18	Insurance - General Liability	2,365	4,514	6,879	-	6,879
19	Insurance - Health and Life	-	-	-	-	-
20	Regulatory Comm. Exp. - Rate Case	2,910	-	2,910	-	2,910
21	Miscellaneous Operating Expense	1,977	45,525	47,502	-	47,502
22	Depreciation Expense	46,650	(8,203)	38,447	-	38,447
23	Taxes Other Than Income	9,712	(1,763)	7,949	-	7,949
24	Property Taxes	28,682	(4,141)	24,541	-	24,541
25	Income Tax	(32,151)	63,481	31,330	(12,776)	18,554
26						
27	Total Operating Expenses	$ 457,245	$ (89,753)	$ 367,492	$ (12,776)	$ 354,715
28	Operating Income (Loss)	$ (16,321)	$ 89,753	$ 73,432	$ (20,324)	$ 53,109

References:
Column [A]: Company Schedule C-1
Column [B]: Surrebuttal Schedule AII-2
Column [C]: Column [A] + Column [B]
Column [D]: Surrebuttal Schedules DWC-1 and DWC-2
Column [E]: Column [C] + Column [D]

ARIZONA-AMERICAN WATER COMPANY, INC. - HAVASU WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

SCHEDULE AII-2

SURREBUTTAL SUMMARY OF OPERATING INCOME STATEMENT ADJUSTMENTS - TEST YEAR

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJ #1	[C] ADJ #2	[D] ADJ #3	[E] ADJ #4	[F] ADJ #5	[G] ADJ #6	[H] ADJ #7	[I] ADJ #8	[J] STAFF ADJUSTED
1	*REVENUES:*										
2	Metered Water Sales	$ 430,392	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 430,392
3	Water Sales - Unmetered	-	-	-	-	-	-	-	-	-	-
4	Other Operating Revenue	10,532	-	-	-	-	-	-	-	-	10,532.0
5	Total Operating Revenues	$ 440,924	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 440,924
6	*OPERATING EXPENSES:*										
7	Salaries & Wages	$ 171,419	$ -	$ -	$ (54,078)	$ 59,846	$ (117,341)	$ -	$ -	$ -	$ 59,846
8	Purchased Water	806	-	-	-	-	-	-	-	-	$ 806
9	Purchased Pumping Power	47,018	120	-	-	-	-	-	-	-	$ 47,138
10	Chemicals	1,266	-	-	(2,365)	-	-	-	-	-	$ (1,099)
11	Repairs & Maintenance	75,805	-	-	-	-	-	-	-	-	$ 75,805
12	Office Supplies & Expense	21,243	2,045	-	(13,395)	-	-	-	-	-	$ 9,893
13	Outside Services	2,462	11,247	-	-	-	-	-	-	-	$ 13,709
14	Service Company Charges	75,244	-	(75,244)	-	-	-	-	-	-	$ -
15	Water Testing	-	-	-	-	-	-	-	-	-	$ -
16	Rents	1,837	-	-	-	-	-	-	-	-	$ 1,837
17	Transportation Expense	-	-	-	-	-	-	-	-	-	$ -
18	Insurance - General Liability	2,365	4,514	-	-	-	-	-	-	-	$ 6,879
19	Insurance -Health and Life	-	-	-	-	-	-	-	-	-	$ -
20	Regulatory Comm. Exp. - Rate Case	2,910	-	-	-	-	-	-	-		$ 2,910
21	Miscellaneous Operating Expense	1,977	46,568	-	(1,043)	-	-	-	-	-	$ 47,502
22	Depreciation Expense	46,650	-	-	-	-		(8,203)	-	-	$ 38,447
23	Taxes Other Than Income	9,712	-		-	7,949	(9,712)	-	-	-	$ 7,949
24	Property Taxes	28,682	-	-	-	-	-		(4,141)	-	$ 24,541
25	Income Tax	(32,151)	-	-	-	-	-	-		63,481	$ 31,330
26											
27	Total Operating Expenses	$ 457,245	$ 64,494	$ (75,244)	$ (70,882)	$ 67,795	$ (127,053)	$ (8,203)	$ (4,141)	$ 63,481	$ 367,492
28	Operating Income (Loss)	$ (16,321)	$ (64,494)	$ 75,244	$ 70,882	$ (67,795)	$ 127,053	$ 8,203	$ 4,141	$ (63,481)	$ 73,432

ADJ #		References:
1	Citizens, Corporate Costs Allocation	Schedule AII-3
2	Service Company Charges	Schedule AII-4
3	Projected additional expenses	Schedule AII-5
4	Test Year Salaries, Wages & Related Expenses	Schedule AII-6
5	Projected Salaries, Wages & Related Expenses	Schedule AII-7
6	Depreciation Expense	Schedule AII-8
7	Property Taxes	Schedule AII-9
8	Income Taxes	Schedule AII-10

AGUA FRIA WATER

ARIZONA-AMERICAN WATER COMPANY, INC. - AGUA FRIA WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-1

SURREBUTTAL REVENUE REQUIREMENT

LINE NO.	DESCRIPTION	[A] STAFF RCND VALUE	[B] STAFF ORIGINAL COST	[C] STAFF FAIR VALUE
1	Adjusted Rate Base	$ 18,283,746	$ 16,665,182	$ 17,474,464
2	Adjusted Operating Income/(Loss)	$ 1,581,299	$ 1,581,299	$ 1,581,299
3	Current Rate of Return (L2 / L1)	8.65%	9.49%	9.05%
4	Required Rate of Return	5.9%	6.5%	6.2%
5	Required Operating Income (L4 x L1)	$ 1,076,571	$ 1,076,571	$ 1,076,571
6	Operating Income Deficiency/(Excess) (L5 - L2)	$ (504,729)	$ (504,729)	$ (504,729)
7	Gross Revenue Conversion Factor	1.62863	1.62863	1.62863
8	Required Revenue Increase/(Decrease) (L7 x L6)	$ (822,019)	$ (822,019)	$ (822,019)
9	Adjusted Test Year Revenue	$ 6,186,037	$ 6,186,037	$ 6,186,037
10	Proposed Annual Revenue (L8 + L9)	$ 5,364,018	$ 5,364,018	$ 5,364,018
11	Required Increase/Decrease in Revenue (%)	-13.29%	-13.29%	-13.29%
12	Rate of Return on Common Equity (%)	9.0%	9.0%	9.0%

References:

Columns [A], [B], & [C]: Staff Surrebuttal Schedules AII-1, DWC-2, DWC-3, & JMR-S8

ARIZONA-AMERICAN WATER COMPANY, INC. - AGUA FRIA WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-2

SURREBUTTAL GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	[A]	[B]	[C]	[D]
	Calculation of Gross Revenue Conversion Factor:				
1	Billings	100.0000%			
2	Uncollecible Factor (Line 11)	0.0000%			
3	Revenues (L1 - L2)	100.0000%			
4	Combined Federal and State Tax Rate (Line 17)	38.5989%			
5	Subtotal (L3 - L4)	61.4011%			
6	Revenue Conversion Factor (L1 / L5)	1.628635			
	Calculation of Uncollecttible Factor:				
7	Unity	100.0000%			
8	Combined Federal and State Tax Rate (Line 17)	38.5989%			
9	One Minus Combined Income Tax Rate (L7 - L8)	61.4011%			
10	Uncollectible Rate	0.0000%			
11	Uncollectible Factor (L9 x L10)	0.0000%			
	Calculation of Effective Tax Rate:				
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%			
13	Arizona State Income Tax Rate	6.9680%			
14	Federal Taxable Income (L12 - L13)	93.0320%			
15	Applicable Federal Income Tax Rate (Line 40)	34.0000%			
16	Effective Federal Income Tax Rate (L14 x L15)	31.6309%			
17	Combined Federal and State Income Tax Rate (L13 + L16)	38.5989%			
18	Required Operating Income (Schedule DWC-1, Col. [B], Line 5)	$ 1,076,571			
19	Adjusted Test Year Operating Income (Loss) (Sch. All-1, Col. [C], Line 28)	$ 1,581,299			
20	Required Increase in Operating Income (L18 - L19)		$ (504,729)		
21	Income Taxes on Recommended Revenue (Col. [D], L39)	$ 376,099			
22	Income Taxes on Test Year Revenue (Col. [B], L39)	$ 693,389			
23	Required Increase in Revenue to Provide for Income Taxes (L21 - L22)		$ (317,290)		
24	Recommended Revenue Requirement (Schedule DWC-1, Col. [B], Line 10)	$ 5,364,018			
25	Uncollectible Rate (Line 10)	0.0000%			
26	Uncollectible Expense on Recommended Revenue (L24 x L25)	$ -			
27	Adjusted Test Year Uncollectible Expense	$ -			
28	Required Increase in Revenue to Provide for Uncollectible Exp. (L26 - L27)		$ -		
29	Total Required Increase in Revenue (L20 + L23 + L28)		$ (822,019)		
	Calculation of Income Tax:	Test Year		STAFF Recommended	
30	Revenue (Schedule All-1, Col. [C], Line 5 & Sch. DWC-1, Col. [B], Line 10)	$ 6,186,037		$ 5,364,018	
31	Operating Expenses Excluding Income Taxes	$ 3,911,349	$ -	$ 3,911,349	
32	Synchronized Interest (L43)	$ 478,291		$ 478,291	
33	Arizona Taxable Income (L30 - L31 - L32)	$ 1,796,397.78		$ 974,378.78	
34	Arizona State Income Tax Rate	6.9680%		6.9680%	
35	Arizona Income Tax (L33 x L34)		$ 125,173		$ 67,895
36	Federal Taxable Income (L33 - L35)	$ 1,671,225		$ 906,484	
37	Federal Income Tax Rate	34.0000%		34.0000%	
38	Federal Income Tax (L36 x L37)		$ 568,216		$ 308,205
39	Combined Federal and State Income Tax (L35 + L38)		$ 693,389		$ 376,099
40	Applicable Federal Income Tax Rate (Col. [D], L38 - Col. [B], L38) / (Col. [C], L36 - Col. [A], L36)				34.0000%
	Calculation of Interest Synchronization:				
41	Rate Base (Schedule DWC-3, Col. [C], Line 17)	$ 16,665,182			
42	Weighted Average Cost of Debt	2.87%			
43	Synchronized Interest (L41 x L42)	$ 478,291			

ARIZONA-AMERICAN WATER COMPANY, INC. - AGUA FRIA WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-3

SURREBUTTAL RATE BASE - ORIGINAL COST

LINE NO.		[A] COMPANY AS FILED	[B] STAFF ADJUSTMENTS	ADJ	[C] STAFF AS ADJUSTED
1	Plant in Service	$ 50,919,880	$ 142,227	A	$ 51,062,107
2	Less: Accumulated Depreciation	4,993,698	27,130	B	5,020,828
3	Net Plant in Service	$ 45,926,182	$ 115,097		$ 46,041,279
	LESS:				
4	Contributions in Aid of Construction (CIAC)	$ -	$ -		$ -
5	Less: Accumulated Amortization	-	-		-
6	Net CIAC	1,973,438	-		1,973,438
7	Advances in Aid of Construction (AIAC)	27,385,370	-		27,385,370
8	Customer Deposits	-	-		-
9	Meter Advances	17,289	-		17,289
10	Deferred Income Tax Credits	-	-		-
	ADD:				
11	Cash Working Capital	-	-		-
12	Prepayments	-	-		-
13	Supplies Inventory	-	-		-
14	Projected Capital Expenditures	-	-		-
15	Deferred Debits	-	-		-
16	Citizens Acquisition Adjustment	13,305,699	(13,305,699)	C	-
17	Original Cost Rate Base	$ 29,855,784	$ (13,190,602)		$ 16,665,182

Adjustments:
A. Per plant adjustments on Surrebuttal Schedule DWC-4
B. Per accumulated depreciation adjustments on Surrebuttal Schedule DWC-4
C. Per acquisition adjustment on Surrebuttal Schedule DWC-4

References:
Column [A]: Company Schedule B-1
Column [B]: Staff Surrebuttal Schedule DWC-4
Column [C]: Column [A] + Column [B]

SURREBUTTAL SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS

LINE NO.	ACCT. NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] Plant-not used ADJ #1	[C] Plant-unidentified ADJ #2	[D] Plant Mis-Posted ADJ #3	[E] Plant Prev. Dec. ADJ #4	[F] Post-TY Pl. ADJ #5	[G] AFUDC Adj. ADJ #6	[H] Acquisition Adj ADJ #7	[I] STAFF ADJUSTED
		PLANT IN SERVICE:			Leave Blank	Leave Blank	Leave Blank				
1		Intangible									
2	301.00	Organization	$ 1,229	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,229
3	302.00	Franchises	78,887	-	-	-	-	-	-	-	78,887
4	303.00	Miscellaneous Intangibles	115,264	-	-	-	-	-	-	-	115,264
5		Subtotal Intangible	195,380	-	-	-	-	-	-	-	195,380
6											
7		Source of Supply									
8	310.00	Land & Land Rights	217,682	(4,619)	-	-	-	-	-	-	213,063
9	311.00	Structures & Improvements	1,150,072	(11,196)	-	-	-	50,631	-	-	1,189,507
10	312.00	Collecting & Impounding Reservoirs	-	-	-	-	-	-	-	-	-
11	313.00	Lakes, Rivers, Other Intakes	-	-	-	-	-	-	-	-	-
12	314.00	Wells and Springs	4,081,994	-	-	-	-	(29,586)	-	-	4,052,408
13		Subtotal Source of Supply	5,449,748	(15,815)	-	-	-	21,045	-	-	5,454,978
14											
15		Pumping									
16	320.00	Land & Land Rights	47,681	-	-	-	-	-	-	-	47,681
17	321.00	Structures & Improvements	1,246,735	-	-	-	-	-	-	-	1,246,735
18	323.00	Other Power Production	-	-	-	-	-	-	-	-	-
19	325.00	Electric Pumping Equipment	14,538,913	(15,122)	-	-	-	90,551	-	-	14,614,342
20	326.00	Diesel Pumping Equipment	25,799	-	-	-	-	-	-	-	25,799
21	328.10	Gas Engine Pumping Equipment	697	-	-	-	-	-	-	-	697
22		Subtotal Pumping	15,859,825	(15,122)	-	-	-	90,551	-	-	15,935,254
23											
24		Water Treatment									
25	330.00	Land & Land Rights	-	-	-	-	-	-	-	-	-
26	331.00	Structures & Improvements	39,917	-	-	-	-	-	-	-	39,917
27	332.00	Water Treatment Equipment	387,757	(3,442)	-	-	-	(10,260)	-	-	374,055
28		Subtotal Water Treatment	427,674	(3,442)	-	-	-	(10,260)	-	-	413,972
29											
30		Transmission & Distribution									
31	340.00	Land & Land Rights	225	-	-	-	-	-	-	-	225
32	341.00	Structures & Improvements	-	-	-	-	-	-	-	-	-
33	342.00	Distribution Reservoirs & Standpipes	3,145,746	(34,414)	-	-	-	(20,687)	-	-	3,090,645
34	343.00	Transmission & Distribution	21,475,529	(7,710)	-	-	-	(8,345)	-	-	21,459,474
35	344.00	Fire Mains	-	-	-	-	-	-	-	-	-
36	345.00	Services	2,694,167	-	-	-	-	-	-	-	2,694,167
37	346.00	Meters	1,744,305	-	-	-	-	-	-	-	1,744,305
38	348.00	Hydrants	2,799,956	-	-	-	-	5,229	-	-	2,805,185
39	349.00	Other Transmission & Distribution	-	-	-	-	-	-	-	-	-
40		Subtotal Transmission & Distribu.	31,859,928	(42,124)	-	-	-	(23,803)	-	-	31,794,001
41											
42		General - Allocated Common Plant									
43	389.00	Land & Land Rights	681	-	-	-	-	-	-	-	681
44	390.00	Structures & Improvements	467,707	-	-	-	-	-	-	-	467,707
45	391.00	Office Furniture and Equipment	238,820	-	-	-	-	(8,514)	-	-	230,306
46	391.10	Computer Equipment	272,602	(82,674)	-	-	-	-	-	-	189,928
47	392.00	Transportation Equipment	251,004	-	-	-	-	-	-	-	251,004
48	393.00	Stores Equipment	4,012	-	-	-	-	-	-	-	4,012
49	394.00	Tools, Shop, & Garage Equipment	66,402	-	-	-	-	(9,000)	-	-	57,402
50	395.00	Laboratory Equipment	18,183	-	-	-	-	-	-	-	18,183
51	396.00	Power Operated Equipment	16,803	-	-	-	-	-	-	-	16,803
52	397.00	Communication Equipment	98,945	-	-	-	-	23,584	-	-	122,529
53	398.00	Miscellaneous Equipment	38,697	-	-	-	-	-	-	-	38,697
54		Subtotal General	1,473,856	(82,674)	-	-	-	6,070	-	-	1,397,252
55											
56	Add:										-
57											-
58	Less:	Remove Double-Booked Advances	(4,128,730)								(4,128,730)
59		AFUDC Adjustment 3/95**	(217,801)	-	-	-	-	-	217,801	-	-
60				-	-	-	-	-	-	-	-
61	Total Plant in Service		$ 50,919,880	$ (159,177)	$ -	$ -	$ -	$ 83,603	$ 217,801	$ -	$ 51,062,107
62	Less: Accumulated Depreciation		4,993,698	25,330	-	-	-	-	52,460	-	5,020,828
63	Net Plant in Service (L59 - L 60)		$ 45,926,182	$ (133,847)	$ -	$ -	$ -	$ 83,603	$ 165,341	$ -	$ 46,041,279
64											
65	*LESS:*										
66	Contributions in Aid of Construction (CIAC)		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
67	Less: Accumulated Amortization		-	-	-	-	-	-	-	-	-
68	Net CIAC (L25 - L26)		1,973,438	-	-	-	-	-	-	-	1,973,438
69	Advances in Aid of Construction (AIAC)		27,385,370	-	-	-	-	-	-	-	27,385,370
70	Customer Deposits		-	-	-	-	-	-	-	-	-
71	Meter Advances		17,289	-	-	-	-	-	-	-	17,289
72	Deferred Income Tax Credits		-	-	-	-	-	-	-	-	-
73											
74	*ADD:*										
75	Cash Working Capital Allowance		-	-	-	-	-	-	-	-	-
76	Prepayments		-	-	-	-	-	-	-	-	-
77	Supplies Inventory		-	-	-	-	-	-	-	-	-
78	Projected Capital Expenditures		-	-	-	-	-	-	-	-	-
79	Deferred Debits		-	-	-	-	-	-	-	-	-
80	Citizens Acquisition Adjustment		13,305,699	-	-	-	-	-	-	(13,305,699)	-
81	Original Cost Rate Base		$ 29,855,784	$ (133,847)	$ -	$ -	$ -	$ 83,603	$ 165,341	$ (13,305,699)	$ 16,665,182

ADJ #		References:
1	Plant - not used & useful	Per Staff Engineering Reports.
2	Plant - unidentified	Per Staff Engineering Reports.
3	Plant - mis-posted	Per Company Response to Staff Data Request BKB 26-3.
4	Plant - removed by previous decision	Per Decision No. 60172.
5	Post-Test Year Plant	Per Company Response to Staff Data Request DWC 12-2
6	Remove AFUDC Adj. 3/95	Per Company Response to Staff Data Request DWC 6-10 Amended
7	Remove Acquisition Adjustment	Per Carlson Direct Testimony

ARIZONA-AMERICAN WATER COMPANY, INC. - AGUA FRIA WATER

SCHEDULE AII-1

Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

SURREBUTTAL OPERATING INCOME STATEMENT - TEST YEAR AND STAFF PROPOSED

LINE NO.	DESCRIPTION	[A] COMPANY TEST YEAR AS FILED	[B] STAFF TEST YEAR ADJUSTMENTS	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF PROPOSED CHANGES	[E] STAFF RECOMMENDED
1	*REVENUES:*					
2	Metered Water Sales	$ 5,846,076	$ -	$ 5,846,076	$ (822,019)	$ 5,024,057
3	Water Sales - Unmetered	-	-	-	-	-
4	Other Operating Revenue	339,961	-	339,961	-	339,961
5	Total Operating Revenues	$ 6,186,037	$ -	$ 6,186,037	$ (822,019)	$ 5,364,018
6	*OPERATING EXPENSES:*					
7	Salaries & Wages	$ 632,324	$ (216,798)	$ 415,526	$ -	$ 415,526
8	Purchased Water	382,700	-	382,700	-	382,700
9	Purchased Pumping Power	601,814	73	601,887	-	601,887
10	Chemicals	10,523	-	10,523	-	10,523
11	Repairs & Maintenance	198,956	8,729	207,685	-	207,685
12	Office Supplies & Expense	164,777	(127,984)	36,793	-	36,793
13	Outside Services	35,465	30,666	66,131	-	66,131
14	Service Company Charges	713,274	(713,274)	-	-	-
15	Water Testing	8,614	-	8,614	-	8,614
16	Rents	25,840	-	25,840	-	25,840
17	Transportation Expense	-	-	-	-	-
18	Insurance - General Liability	33,390	16,342	49,732	-	49,732
19	Insurance - Health and Life	-	-	-	-	-
20	Regulatory Comm. Exp. - Rate Case	43,906	-	43,906	-	43,906
21	Miscellaneous Operating Expense	188,009	259,615	447,624	-	447,624
22	Depreciation Expense	1,187,079	88,875	1,275,954	-	1,275,954
23	Taxes Other Than Income	40,435	3,225	43,660	-	43,660
24	Property Taxes	315,444	(20,670)	294,774	-	294,774
25	Income Tax	387,708	305,681	693,389	(317,290)	376,099
26						
27	Total Operating Expenses	$ 4,970,258	$ (365,520)	$ 4,604,738	$ (317,290)	$ 4,287,448
28	Operating Income (Loss)	$ 1,215,779	$ 365,520	$ 1,581,299	$ (504,729)	$ 1,076,570

References:
Column [A]: Company Schedule C-1
Column [B]: Surrebuttal Schedule AII-2
Column [C]: Column [A] + Column [B]
Column [D]: Surrebuttal Schedules DWC-1 and DWC-2
Column [E]: Column [C] + Column [D]

ARIZONA-AMERICAN WATER COMPANY, INC. - AGUA FRIA WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

SCHEDULE AII-2

SURREBUTTAL SUMMARY OF OPERATING INCOME STATEMENT ADJUSTMENTS - TEST YEAR

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJ #1	[C] ADJ #2	[D] ADJ #3	[E] ADJ #4	[F] ADJ #5	[G] ADJ #6	[H] ADJ #7	[I] ADJ #8	[J] ADJ #9	[K] STAFF ADJUSTED
1	*REVENUES:*											
2	Metered Water Sales	$ 5,846,076	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,846,076
3	Water Sales - Unmetered	-	-	-	-	-	-	-	-	-	-	-
4	Other Operating Revenue	339,961	-	-	-	-	-	-	-	-	-	339,961.0
5	Total Operating Revenues	$ 6,186,037	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 6,186,037
6	*OPERATING EXPENSES:*											
7	Salaries & Wages	$ 632,324	$ -	$ (126,182)	$ -	$ 415,526	$ (506,142)	$ -	$ -	$ -	$ -	$ 415,526
8	Purchased Water	382,700	-	-	-	-	-	-	-	-	-	$ 382,700
9	Purchased Pumping Power	601,814	73	-	-	-	-	-	-	-	-	$ 601,887
10	Chemicals	10,523	-	-	-	-	-	-	-	-	-	$ 10,523
11	Repairs & Maintenance	198,956	8,729	-	-	-	-	-	-	-	-	$ 207,685
12	Office Supplies & Expense	164,777	32,612	(160,596)	-	-	-	-	-	-	-	$ 36,793
13	Outside Services	35,465	30,666	-	-	-	-	-	-	-	-	$ 66,131
14	Service Company Charges	713,274	-	-	(713,274)	-	-	-	-	-	-	$ -
15	Water Testing	8,614	-	-	-	-	-	-	-	-	-	$ 8,614
16	Rents	25,840	-	-	-	-	-	-	-	-	-	$ 25,840
17	Transportation Expense	-	-	-	-	-	-	-	-	-	-	$ -
18	Insurance - General Liability	33,390	49,205	(32,863)	-	-	-	-	-	-	-	$ 49,732
19	Insurance -Health and Life	-	-	-	-	-	-	-	-	-	-	$ -
20	Regulatory Comm. Exp. - Rate Case	43,906	-	-	-	-	-	-	-	-	-	$ 43,906
21	Miscellaneous Operating Expense	188,009	264,612	(4,997)	-	-	-	-	-	-	-	$ 447,624
22	Depreciation Expense	1,187,079	-	-	-	-	-	88,875	-	-	-	$ 1,275,954
23	Taxes Other Than Income	40,435	-	-	-	43,660	(40,435)	-	-	-	-	$ 43,660
24	Property Taxes	315,444	-	-	-	-	-	-	(20,670)	-	-	$ 294,774
25	Income Tax	387,708	-	-	-	-	-	-	-	305,681		$ 693,389
26												
27	Total Operating Expenses	$ 4,970,258	$ 385,897	$ (324,638)	$ (713,274)	$ 459,186	$ (546,577)	$ 88,875	$ (20,670)	$ 305,681	$ -	$ 4,604,738
28	Operating Income (Loss)	$ 1,215,779	$ (385,897)	$ 324,638	$ 713,274	$ (459,186)	$ 546,577	$ (88,875)	$ 20,670	$ (305,681)	$ -	$ 1,581,299

ADJ #		References:
1	Citizens, Corporate Costs Allocation	Schedule AII-3
2	Service Company Charges	Schedule AII-4
3	Projected additional expenses	Schedule AII-5
4	Test Year Salaries, Wages & Related Expenses	Schedule AII-6
5	Projected Salaries, Wages & Related Expenses	Schedule AII-7
6	Property Taxes	Schedule AII-8
7	Depreciation Expense	Schedule AII-9
8	Income Taxes	Schedule AII-10

ANTHEM WATER

ARIZONA-AMERICAN WATER COMPANY, INC. - ANTHEM WATER Schedule DWC-1
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

SURREBUTTAL REVENUE REQUIREMENT

LINE NO.	DESCRIPTION	[A] STAFF RCND VALUE	[B] STAFF ORIGINAL COST	[C] STAFF FAIR VALUE
1	Adjusted Rate Base	$ 9,629,285	$ 9,269,095	$ 9,449,190
2	Adjusted Operating Income/(Loss)	$ 968,181	$ 968,181	$ 968,181
3	Current Rate of Return (L2 / L1)	10.05%	10.45%	10.25%
4	Required Rate of Return	6.2%	6.5%	6.3%
5	Required Operating Income (L4 x L1)	$ 598,784	$ 598,784	$ 598,784
6	Operating Income Deficiency/(Excess) (L5 - L2)	$ (369,397)	$ (369,397)	$ (369,397)
7	Gross Revenue Conversion Factor	1.62863	1.62863	1.62863
8	Required Revenue Increase/(Decrease) (L7 x L6)	$ (601,614)	$ (601,614)	$ (601,614)
9	Adjusted Test Year Revenue	$ 4,010,805	$ 4,010,805	$ 4,010,805
10	Proposed Annual Revenue (L8 + L9)	$ 3,409,191	$ 3,409,191	$ 3,409,191
11	Required Increase/Decrease in Revenue (%)	-15.00%	-15.00%	-15.00%
12	Rate of Return on Common Equity (%)	9.0%	9.0%	9.0%

References:

Columns [A], [B], & [C]: Staff Surrebuttal Schedules AII-1, DWC-2, DWC-3, & JMR-S8

ARIZONA-AMERICAN WATER COMPANY, INC. - ANTHEM WATER

Schedule DWC-2

Docket No. WS-01303A-02-0867 et al.

Test Year Ended December 31, 2001

SURREBUTTAL GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	[A]	[B]	[C]	[D]
	Calculation of Gross Revenue Conversion Factor:				
1	Billings	100.0000%			
2	Uncollecible Factor (Line 11)	0.0000%			
3	Revenues (L1 - L2)	100.0000%			
4	Combined Federal and State Tax Rate (Line 17)	38.5989%			
5	Subtotal (L3 - L4)	61.4011%			
6	Revenue Conversion Factor (L1 / L5)	1.628635			
	Calculation of Uncollecttible Factor:				
7	Unity	100.0000%			
8	Combined Federal and State Tax Rate (Line 17)	38.5989%			
9	One Minus Combined Income Tax Rate (L7 - L8)	61.4011%			
10	Uncollectible Rate	0.0000%			
11	Uncollectible Factor (L9 x L10)	0.0000%			
	Calculation of Effective Tax Rate:				
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%			
13	Arizona State Income Tax Rate	6.9680%			
14	Federal Taxable Income (L12 - L13)	93.0320%			
15	Applicable Federal Income Tax Rate (Line 40)	34.0000%			
16	Effective Federal Income Tax Rate (L14 x L15)	31.6309%			
17	Combined Federal and State Income Tax Rate (L13 + L16)	38.5989%			
18	Required Operating Income (Schedule DWC-1, Col. [B], Line 5)	$ 598,784			
19	Adjusted Test Year Operating Income (Loss) (Sch. AII-1, Col. [C], Line 28)	$ 968,181			
20	Required Increase in Operating Income (L18 - L19)		$ (369,397)		
21	Income Taxes on Recommended Revenue (Col. [D], L39)	$ 209,185			
22	Income Taxes on Test Year Revenue (Col. [B], L39)	$ 441,401			
23	Required Increase in Revenue to Provide for Income Taxes (L21 - L22)		$ (232,216)		
24	Recommended Revenue Requirement (Schedule DWC-1, Col. [B], Line 10)	$ 3,409,191			
25	Uncollectible Rate (Line 10)	0.0000%			
26	Uncollectible Expense on Recommended Revenue (L24 x L25)	$ -			
27	Adjusted Test Year Uncollectible Expense	$ -			
28	Required Increase in Revenue to Provide for Uncollectible Exp. (L26 - L27)		$ -		
29	Total Required Increase in Revenue (L20 + L23 + L28)		$ (601,614)		
	Calculation of Income Tax:	Test Year		STAFF Recommended	
30	Revenue (Schedule AII-1, Col. [C], Line 5 & Sch. DWC-1, Col. [B], Line 10)	$ 4,010,805		$ 3,409,191	
31	Operating Expenses Excluding Income Taxes	$ 2,601,223	$ -	$ 2,601,223	
32	Synchronized Interest (L43)	$ 266,023		$ 266,023	
33	Arizona Taxable Income (L30 - L31 - L32)	$ 1,143,559		$ 541,945	
34	Arizona State Income Tax Rate	6.9680%		6.9680%	
35	Arizona Income Tax (L33 x L34)		$ 79,683		$ 37,763
36	Federal Taxable Income (L33 - L35)	$ 1,063,876		$ 504,182	
37	Federal Income Tax Rate	34.0000%		34.0000%	
38	Federal Income Tax (L36 x L37)		$ 361,718		$ 171,422
39	Combined Federal and State Income Tax (L35 + L38)		$ 441,401		$ 209,185
40	Applicable Federal Income Tax Rate (Col. [D], L38 - Col. [B], L38) / (Col. [C], L36 - Col. [A], L36)				34.0000%
	Calculation of Interest Synchronization:				
41	Rate Base (Schedule DWC-3, Col. [C], Line 17)	$ 9,269,095			
42	Weighted Average Cost of Debt	2.87%			
43	Synchronized Interest (L41 x L42)	$ 266,023			

ARIZONA-AMERICAN WATER COMPANY, INC. - ANTHEM WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-3

SURREBUTTAL RATE BASE - ORIGINAL COST

LINE NO.		[A] COMPANY AS FILED	[B] STAFF ADJUSTMENTS	ADJ	[C] STAFF AS ADJUSTED
1	Plant in Service	$ 41,428,654	$ 99,293	A	$ 41,527,947
2	Less: Accumulated Depreciation	2,087,919	(1,430)	B	2,086,489
3	Net Plant in Service	$ 39,340,735	$ 100,723		$ 39,441,458
	LESS:				
4	Contributions in Aid of Construction (CIAC)	$ -	$ -		$ -
5	Less: Accumulated Amortization	-	-		-
6	Net CIAC	1,075,425	-		1,075,425
7	Advances in Aid of Construction (AIAC)	29,093,642	-		29,093,642
8	Customer Deposits	-	-		-
9	Meter Advances	3,296	-		3,296
10	Deferred Income Tax Credits	-	-		-
	ADD:				
11	Cash Working Capital	-	-		-
12	Prepayments	-	-		-
13	Supplies Inventory	-	-		-
14	Projected Capital Expenditures	-	-		-
15	Deferred Debits	-	-		-
16	Citizens Acquisition Adjustment	11,045,860	(11,045,860)	C	-
17	Original Cost Rate Base	$ 20,214,232	$ (10,945,137)		$ 9,269,095

Adjustments:
A. Per plant adjustments on Surrebuttal Schedule DWC-4
B. Per accumulated depreciation adjustments on Surrebuttal Schedule DWC-4
C. Per acquisition adjustment on Surrebuttal Schedule DWC-4

References:
Column [A]: Company Schedule B-1
Column [B]: Staff Surrebuttal Schedule DWC-4
Column [C]: Column [A] + Column [B]

ARIZONA-AMERICAN WATER COMPANY, INC. - ANTHEM WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-4

SURREBUTTAL SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS

LINE NO.	ACCT. NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] Plant-not used ADJ #1	[C] Plant-unidentified ADJ #2	[D] Plant Mis-Posted ADJ #3	[E] Plant Prev. Dec. ADJ #4	[F] Post-TY Pl. ADJ #5	[G] AFUDC Adj. ADJ #6	[H] Acquisition Adj ADJ #7	[I] STAFF ADJUSTED
		PLANT IN SERVICE:			Leave Blank	Leave Blank	Leave Blank		Leave Blank		
1		Intangible									
2	301.00	Organization	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
3	302.00	Franchises	3,827,476	-	-	-	-	-	-	-	3,827,476
4	303.00	Miscellaneous Intangibles	-	-	-	-	-	-	-	-	-
5		Subtotal Intangible	3,827,476	-	-	-	-	-	-	-	3,827,476
6											
7		Source of Supply									
8	310.00	Land & Land Rights	5,000	-	-	-	-	-	-	-	5,000
9	311.00	Structures & Improvements	93,281	-	-	-	-	118,894	-	-	212,175
10	312.00	Collecting & Impounding Reservoirs	370,979	-	-	-	-	-	-	-	370,979
11	313.00	Lakes, Rivers, Other Intakes	394,971	-	-	-	-	-	-	-	394,971
12	314.00	Wells and Springs	461,497	-	-	-	-	-	-	-	461,497
13		Subtotal Source of Supply	1,325,728	-	-	-	-	118,894	-	-	1,444,622
14											
15		Pumping									
16	320.00	Land & Land Rights	20,000	-	-	-	-	-	-	-	20,000
17	321.00	Structures & Improvements	2,067,878	-	-	-	-	(10,000)	-	-	2,057,878
18	323.00	Other Power Production	-	-	-	-	-	-	-	-	-
19	325.00	Electric Pumping Equipment	9,609,435	-	-	-	-	(998)	-	-	9,608,437
20	326.00	Diesel Pumping Equipment	-	-	-	-	-	-	-	-	-
21	328.10	Gas Engine Pumping Equipment	1,476	-	-	-	-	-	-	-	1,476
22		Subtotal Pumping	11,698,789	-	-	-	-	(10,998)	-	-	11,687,791
23											
24		*Water Treatment*									
25	330.00	Land & Land Rights	-	-	-	-	-	-	-	-	-
26	331.00	Structures & Improvements	634,556	-	-	-	-	-	-	-	634,556
27	332.00	Water Treatment Equipment	4,375,605	-	-	-	-	2,944	-	-	4,378,549
28		Subtotal Water Treatment	5,010,161	-	-	-	-	2,944	-	-	5,013,105
29											
30		Transmission & Distribution									
31	340.00	Land & Land Rights	-	-	-	-	-	-	-	-	18,469
32	341.00	Structures & Improvements	18,469	-	-	-	-	-	-	-	1,866,969
33	342.00	Distribution Reservoirs & Standpipes	1,866,969	-	-	-	-	15,364	-	-	15,471,434
34	343.00	Transmission & Distribution	15,456,070	-	-	-	-	-	-	-	-
35	344.00	Fire Mains	-	-	-	-	-	-	-	-	773,445
36	345.00	Services	773,445	-	-	-	-	-	-	-	411,258
37	346.00	Meters	411,258	-	-	-	-	-	-	-	618,693
38	348.00	Hydrants	618,693	-	-	-	-	-	-	-	-
39	349.00	Other Transmission & Distribution	-	-	-	-	-	-	-	-	-
40		Subtotal Transmission & Distribu.	19,144,904	-	-	-	-	15,364	-	-	19,160,268
41											
42		General - Allocated Common Plant									
43	389.00	Land & Land Rights	171	-	-	-	-	-	-	-	171
44	390.00	Structures & Improvements	117,575	-	-	-	-	-	-	-	117,575
45	391.00	Office Furniture and Equipment	60,022	-	-	-	-	(2,147)	-	-	57,875
46	391.10	Computer Equipment	81,095	(20,781)	-	-	-	-	-	-	60,314
47	392.00	Transportation Equipment	91,298	-	-	-	-	(1,028)	-	-	90,270
48	393.00	Stores Equipment	1,009	-	-	-	-	-	-	-	1,009
49	394.00	Tools, Shop, & Garage Equipment	19,430	-	-	-	-	(5,000)	-	-	14,430
50	395.00	Laboratory Equipment	7,071	-	-	-	-	(450)	-	-	6,621
51	396.00	Power Operated Equipment	6,724	-	-	-	-	(2,500)	-	-	4,224
52	397.00	Communication Equipment	27,473	-	-	-	-	4,995	-	-	32,468
53	398.00	Miscellaneous Equipment	9,728	-	-	-	-	-	-	-	9,728
54		Subtotal General	421,596	(20,781)	-	-	-	(6,130)	-	-	394,685
55											
56		Add:									-
57											-
											-
58		Less:									-
59				-	-	-	-	-	-	-	-
60				-	-	-	-	-	-	-	-
61		Total Plant in Service	$ 41,428,654	$ (20,781)	$ -	$ -	$ -	$ 120,074	$ -	$ -	$ 41,527,947
62		Less: Accumulated Depreciation	2,087,919	1,430	-	-	-	-	-	-	2,086,489
63		Net Plant in Service (L59 - L 60)	$ 39,340,735	$ (19,351)	$ -	$ -	$ -	$ 120,074	$ -	$ -	$ 39,441,458
64											
65		*LESS:*									
66		Contributions in Aid of Construction (CIAC)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
67		Less: Accumulated Amortization	-	-	-	-	-	-	-	-	-
68		Net CIAC (L25 - L26)	1,075,425	-	-	-	-	-	-	-	1,075,425
69		Advances in Aid of Construction (AIAC)	29,093,642	-	-	-	-	-	-	-	29,093,642
70		Customer Deposits	-	-	-	-	-	-	-	-	-
71		Meter Advances	3,296	-	-	-	-	-	-	-	3,296
72		Deferred Income Tax Credits	-	-	-	-	-	-	-	-	-
73											
74		*ADD:*									
75		Cash Working Capital Allowance	-	-	-	-	-	-	-	-	-
76		Prepayments	-	-	-	-	-	-	-	-	-
77		Supplies Inventory	-	-	-	-	-	-	-	-	-
78		Projected Capital Expenditures	-	-	-	-	-	-	-	-	-
79		Deferred Debits	-	-	-	-	-	-	-	-	-
80		Citizens Acquisition Adjustment	11,045,860	-	-	-	-	-	-	(11,045,860)	-
81		Original Cost Rate Base	$ 20,214,232	$ (19,351)	$ -	$ -	$ -	$ 120,074	$ -	$ (11,045,860)	$ 9,269,095

ADJ #		References:
1	*Plant - not used & useful*	Per Staff Engineering Reports
2	Plant - unidentified	Per Staff Engineering Reports
3	Plant - mis-posted	Per Company Response to Staff Data Request BKB 26-3
4	Plant - removed by previous decision	Per Decision No. 60172
5	Post-Test Year Plant	Per Company Response to Staff Data Request DWC 12-2
6	Remove AFUDC Adj. 3/95	Per Company Response to Staff Data Request DWC 6-10 Amended
7	Remove Acquisition Adjustment	Per Carlson Direct Testimony

ARIZONA-AMERICAN WATER COMPANY, INC. - ANTHEM WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

SCHEDULE AII-1

SURREBUTTAL OPERATING INCOME STATEMENT - TEST YEAR AND STAFF PROPOSED

LINE NO.	DESCRIPTION	[A] COMPANY TEST YEAR AS FILED	[B] STAFF TEST YEAR ADJUSTMENTS	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF PROPOSED CHANGES	[E] STAFF RECOMMENDED
1	*REVENUES:*					
2	Metered Water Sales	$ 2,060,418	$ -	$ 2,060,418	$ (601,614)	$ 1,458,804
3	Water Sales - Unmetered	-	-	-	-	-
4	Other Operating Revenue	1,950,387	-	1,950,387	-	1,950,387
5	Total Operating Revenues	$ 4,010,805	$ -	$ 4,010,805	$ (601,614)	$ 3,409,191
6	*OPERATING EXPENSES:*					
7	Salaries & Wages	$ 585,309	$ (213,100)	$ 372,209	$ -	$ 372,209
8	Purchased Water	211,055	(39,000)	172,055	-	172,055
9	Purchased Pumping Power	264,489	(2)	264,487	-	264,487
10	Chemicals	95,282	(16,997)	78,285	-	78,285
11	Repairs & Maintenance	130,909	-	130,909	-	130,909
12	Office Supplies & Expense	74,576	(59,408)	15,168	-	15,168
13	Outside Services	27,139	(7,309)	19,830	-	19,830
14	Service Company Charges	472,080	(472,080)	-	-	-
15	Water Testing	1,193	-	1,193	-	1,193
16	Rents	18,568	-	18,568	-	18,568
17	Transportation Expense	-	-	-	-	-
18	Insurance - General Liability	17,095	35,851	52,946	-	52,946
19	Insurance - Health and Life	-	-	-	-	-
20	Regulatory Comm. Exp. - Rate Case	26,471	-	26,471	-	26,471
21	Miscellaneous Operating Expense	172,138	151,989	324,127	-	324,127
22	Depreciation Expense	912,306	(39,113)	873,193	-	873,193
23	Taxes Other Than Income	31,169	47,302	78,471	-	78,471
24	Property Taxes	225,131	(51,820)	173,311	-	173,311
25	Income Tax	168,318	273,083	441,401	(232,216)	209,185
26						
27	Total Operating Expenses	$ 3,433,228	$ (390,604)	$ 3,042,624	$ (232,216)	$ 2,810,408
28	Operating Income (Loss)	$ 577,577	$ 390,604	$ 968,181	$ (369,398)	$ 598,783

References:
Column [A]: Company Schedule C-1
Column [B]: Surrebuttal Schedule AII-2
Column [C]: Column [A] + Column [B]
Column [D]: Surrebuttal Schedules DWC-1 and DWC-2
Column [E]: Column [C] + Column [D]

ARIZONA-AMERICAN WATER COMPANY, INC. - ANTHEM WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

SCHEDULE AII-2

SURREBUTTAL SUMMARY OF OPERATING INCOME STATEMENT ADJUSTMENTS - TEST YEAR

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJ #1	[C] ADJ #2	[D] ADJ #3	[E] ADJ #4	[F] ADJ #5	[G] ADJ #6	[H] ADJ #7	[I] ADJ #8	[J] ADJ #9	[K] STAFF ADJUSTED
1	*REVENUES:*											
2	Metered Water Sales	$ 2,060,418	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,060,418
3	Water Sales - Unmetered	-	-	-	-	-	-	-	-	-	-	-
4	Other Operating Revenue	1,950,387	-	-	-	-	-	-	-	-	-	1,950,387
5	Total Operating Revenues	$ 4,010,805	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,010,805
6	*OPERATING EXPENSES:*											
7	Salaries & Wages	$ 585,309	$ -		$ (216,313)	$ 372,209	$ (368,996)	$ -	$ -	$ -	$ -	$ 372,209
8	Purchased Water	211,055	-	-	-	-	-	-	-	-	(39,000)	$ 172,055
9	Purchased Pumping Power	264,489	(2)	-	-	-	-	-	-	-	-	$ 264,487
10	Chemicals	95,282	-	-	(16,997)	-	-	-	-	-	-	$ 78,285
11	Repairs & Maintenance	130,909	-	-	-	-	-	-	-	-	-	$ 130,909
12	Office Supplies & Expense	74,576	3,977	-	(63,385)	-	-	-	-	-	-	$ 15,168
13	Outside Services	27,139	(7,309)	-	-	-	-	-	-	-	-	$ 19,830
14	Service Company Charges	472,080	-	(472,080)	-	-	-	-	-	-	-	$ -
15	Water Testing	1,193	-	-	-	-	-	-	-	-	-	$ 1,193
16	Rents	18,568	-	-	-	-	-	-	-	-	-	$ 18,568
17	Transportation Expense	-	-	-	-	-	-	-	-	-	-	$ -
18	Insurance - General Liability	17,095	35,851	-	-	-	-	-	-	-	-	$ 52,946
19	Insurance -Health and Life	-	-	-	-	-	-	-	-	-	-	$ -
20	Regulatory Comm. Exp. - Rate Case	26,471	-	-	-	-	-	-	-		-	$ 26,471
21	Miscellaneous Operating Expense	172,138	156,289	-	(4,300)	-	-	-	-	-	-	$ 324,127
22	Depreciation Expense	912,306	-	-	-	-		(39,113)	-	-	-	$ 873,193
23	Taxes Other Than Income	31,169	-		-	78,471	(31,169)	-	-	-	-	$ 78,471
24	Property Taxes	225,131	-	-	-	-	-		(51,820)	-	-	$ 173,311
25	Income Tax	168,318	-	-	-	-	-	-	-	273,083	-	$ 441,401
26												
27	Total Operating Expenses	$ 3,433,228	$ 188,806	$ (472,080)	$ (300,995)	$ 450,680	$ (400,165)	$ (39,113)	$ (51,820)	$ 273,083	$ (39,000)	# $ 3,042,624
28	Operating Income (Loss)	$ 577,577	$ (188,806)	$ 472,080	$ 300,995	$ (450,680)	$ 400,165	$ 39,113	$ 51,820	$ (273,083)	$ 39,000	# $ 968,181

ADJ #		References:
1	Citizens. Corporate Costs Allocation	Schedule AII-3
2	Service Company Charges	Schedule AII-4
3	Projected additional expenses	Schedule AII-5
4	Test Year Salaries, Wages & Related Expenses	Schedule AII-6
5	Projected Salaries, Wages & Related Expenses	Schedule AII-7
6	Depreciation Expense	Schedule AII-8
7	Property Taxes	Schedule AII-9
8	Income Taxes	Schedule AII-10
9	Purchased Water (Ak-Chin)	Schedule AII-11

ANTHEM AGUA FRIA WASTEWATER

ARIZONA-AMERICAN WATER COMPANY, INC. - ANTHEM/AGUA FRIA WASTEWATER — Schedule DWC-1
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

SURREBUTTAL REVENUE REQUIREMENT

LINE NO.	DESCRIPTION	[A] STAFF RCND VALUE	[B] STAFF ORIGINAL COST	[C] STAFF FAIR VALUE
1	Adjusted Rate Base	$ 2,790,224	$ 2,731,868	$ 2,761,046
2	Adjusted Operating Income/(Loss)	$ 226,780	$ 226,780	$ 226,780
3	Current Rate of Return (L2 / L1)	8.13%	8.30%	8.21%
4	Required Rate of Return	6.3%	6.5%	6.4%
5	Required Operating Income (L4 x L1)	$ 176,479	$ 176,479	$ 176,479
6	Operating Income Deficiency/(Excess) (L5 - L2)	$ (50,301)	$ (50,301)	$ (50,301)
7	Gross Revenue Conversion Factor	1.62863	1.62863	1.62863
8	Required Revenue Increase/(Decrease) (L7 x L6)	$ (81,922)	$ (81,922)	$ (81,922)
9	Adjusted Test Year Revenue	$ 1,866,546	$ 1,866,546	$ 1,866,546
10	Proposed Annual Revenue (L8 + L9)	$ 1,784,624	$ 1,784,624	$ 1,784,624
11	Required Increase/Decrease in Revenue (%)	-4.39%	-4.39%	-4.39%
12	Rate of Return on Common Equity (%)	9.0%	9.0%	9.0%

References:

Columns [A], [B], & [C]: Staff Surrebuttal Schedules AII-1, DWC-2, DWC-3, & JMR-S8

ARIZONA-AMERICAN WATER COMPANY, INC. - ANTHEM/AGUA FRIA WASTEWATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-2

SURREBUTTAL GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	[A]	[B]	[C]	[D]
	Calculation of Gross Revenue Conversion Factor:				
1	Billings	100.0000%			
2	Uncollecible Factor (Line 11)	0.0000%			
3	Revenues (L1 - L2)	100.0000%			
4	Combined Federal and State Tax Rate (Line 17)	38.5989%			
5	Subtotal (L3 - L4)	61.4011%			
6	Revenue Conversion Factor (L1 / L5)	1.628635			
	Calculation of Uncollecttible Factor:				
7	Unity	100.0000%			
8	Combined Federal and State Tax Rate (Line 17)	38.5989%			
9	One Minus Combined Income Tax Rate (L7 - L8)	61.4011%			
10	Uncollectible Rate	0.0000%			
11	Uncollectible Factor (L9 x L10)	0.0000%			
	Calculation of Effective Tax Rate:				
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%			
13	Arizona State Income Tax Rate	6.9680%			
14	Federal Taxable Income (L12 - L13)	93.0320%			
15	Applicable Federal Income Tax Rate (Line 40)	34.0000%			
16	Effective Federal Income Tax Rate (L14 x L15)	31.6309%			
17	Combined Federal and State Income Tax Rate (L13 + L16)	38.5989%			
18	Required Operating Income (Schedule DWC-1, Col. [B], Line 5)	$ 176,479			
19	Adjusted Test Year Operating Income (Loss) (Sch. AII-1, Col. [C], Line 28)	$ 226,780			
20	Required Increase in Operating Income (L18 - L19)		$ (50,301)		
21	Income Taxes on Recommended Revenue (Col. [D], L39)	$ 61,653			
22	Income Taxes on Test Year Revenue (Col. [B], L39)	$ 93,274			
23	Required Increase in Revenue to Provide for Income Taxes (L21 - L22)		$ (31,621)		
24	Recommended Revenue Requirement (Schedule DWC-1, Col. [B], Line 10)	$ 1,784,624			
25	Uncollectible Rate (Line 10)	0.0000%			
26	Uncollectible Expense on Recommended Revenue (L24 x L25)	$ -			
27	Adjusted Test Year Uncollectible Expense	$ -			
28	Required Increase in Revenue to Provide for Uncollectible Exp. (L26 - L27)		$ -		
29	Total Required Increase in Revenue (L20 + L23 + L28)		$ (81,922)		
	Calculation of Income Tax:	Test Year		STAFF Recommended	
30	Revenue (Schedule AII-1, Col. [C], Line 5 & Sch. DWC-1, Col. [B], Line 10)	$ 1,866,546		$ 1,784,624	
31	Operating Expenses Excluding Income Taxes	$ 1,546,492	$ -	$ 1,546,492	
32	Synchronized Interest (L43)	$ 78,405		$ 78,405	
33	Arizona Taxable Income (L30 - L31 - L32)	$ 241,649		$ 159,727	
34	Arizona State Income Tax Rate	6.9680%		6.9680%	
35	Arizona Income Tax (L33 x L34)		$ 16,838		$ 11,130
36	Federal Taxable Income (L33 - L35)	$ 224,811		$ 148,597	
37	Federal Income Tax Rate	34.0000%		34.0000%	
38	Federal Income Tax (L36 x L37)		$ 76,436		$ 50,523
39	Combined Federal and State Income Tax (L35 + L38)		$ 93,274		$ 61,653
40	Applicable Federal Income Tax Rate (Col. [D], L38 - Col. [B], L38) / (Col. [C], L36 - Col. [A], L36)				34.0000%
	Calculation of Interest Synchronization:				
41	Rate Base (Schedule DWC-3, Col. [C], Line 17)	$ 2,731,868			
42	Weighted Average Cost of Debt	2.87%			
43	Synchronized Interest (L41 x L42)	$ 78,405			

ARIZONA-AMERICAN WATER COMPANY, INC. - ANTHEM/AGUA FRIA WASTEWATER — Schedule DWC-3
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

SURREBUTTAL RATE BASE - ORIGINAL COST

LINE NO.		[A] COMPANY AS FILED	[B] STAFF ADJUSTMENTS	ADJ	[C] STAFF AS ADJUSTED
1	Plant in Service	$ 23,053,411	$ (16,142)	A	$ 23,037,269
2	Less: Accumulated Depreciation	789,221	(1,114)	B	788,107
3	Net Plant in Service	$ 22,264,190	$ (15,028)		$ 22,249,162
	LESS:				
4	*Contributions in Aid of Construction (CIAC)*	$ -	$ -		$ -
5	Less: Accumulated Amortization	-	-		-
6	Net CIAC	472,196	-		472,196
7	Advances in Aid of Construction (AIAC)	19,045,098	-		19,045,098
8	Customer Deposits	-	-		-
9	Meter Advances	-	-		-
10	Deferred Income Tax Credits	-	-		-
	ADD:				
11	Cash Working Capital	-	-		-
12	Prepayments	-	-		-
13	Supplies Inventory	-	-		-
14	Projected Capital Expenditures	-	-		-
15	Deferred Debits	-	-		-
16	Tolleson Trickling Filter	-	-		
16	Citizens Acquisition Adjustment	6,134,972	(6,134,972)	C	-
17	Original Cost Rate Base	$ 8,881,868	$ (6,150,000)		$ 2,731,868

Adjustments:
A. Per plant adjustments on Surrebuttal Schedule DWC-4
B. Per accumulated depreciation adjustments on Surrebuttal Schedule DWC-4
C. Per acquisition adjustment on Surrebuttal Schedule DWC-4

References:
Column [A]: Company Schedule B-1
Column [B]: Staff Surrebuttal Schedule DWC-4
Column [C]: Column [A] + Column [B]

ARIZONA-AMERICAN WATER COMPANY, INC. - ANTHEM/AGUA FRIA WASTEWATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-4

SURREBUTTAL SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS

LINE NO.	ACCT. NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] Plant-not used ADJ #1	[C] Plant-unidentified ADJ #2	[D] Plant Mis-Posted ADJ #3	[E] Plant Prev. Dec. ADJ #4	[F] Post-TY Pl. ADJ #5	[G] AFUDC Adj. ADJ #6	[H] Acquisition Adj ADJ #7	[I] STAFF ADJUSTED
		PLANT IN SERVICE:			Leave Blank	Leave Blank	Leave Blank		Leave Blank		
1		Intangible									
2	301.00	Organization	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
3	302.00	Franchises	251,928	-	-	-	-	-	-	-	251,928
4	303.00	Miscellaneous Intangibles	-	-	-	-	-	-	-	-	-
5		Subtotal Intangible	251,928	-	-	-	-	-	-	-	251,928
6											
7		Treatment and Discharge									
8	310.00	Land & Land Rights	336,560	-	-	-	-	-	-	-	336,560
9	311.00	Structures & Improvements		-	-	-	-	-	-	-	-
10	312.00	Preliminary Treatment	823,719	-	-	-	-	-	-	-	823,719
11	313.00	Primary Treatment Eauipment	-	-	-	-	-	-	-	-	-
12	314.00	Secondary Treatment Equipment	2,062,401	-	-	-	-	-	-	-	2,062,401
13	315.00	Tertiary Equipment	8,731,796	-	-	-	-	-	-	-	8,731,796
14	316.00	Disfection Equipment	891,776	-	-	-	-	-	-	-	891,776
15	317.00	Effluent Lift Station E	813,269	-	-	-	-	-	-	-	813,269
16	318.00	*Outfall Line*	-	-	-	-	-	-	-	-	-
17	319.00	Sludge, Treatment & Distribution	-	-	-	-	-	-	-	-	-
18	321.00	Influent Lift Station	5,000	-	-	-	-	1,208	-	-	6,208
20	322.00	General Treatment Equipment	88,108	-	-	-	-	2,463	-	-	90,571
13		Subtotal Treatment & Discharge	13,752,629	-	-	-	-	3,671	-	-	13,756,300
14											
15		Collection and Influent									
16	340.00	Land & Land Rights	-	-	-	-	-	-	-	-	-
17	341.00	Structures & Improvements	-	-	-	-	-	-	-	-	-
18	342.00	Collection System Lift	140,048	-	-	-	-	4,940	-	-	144,988
19	343.00	Collection Mains	7,425,125	-	-	-	-	-	-	-	7,425,125
20	344.00	Force Mains	1,918	-	-	-	-	-	-	-	1,918
	345.00	Discharge Services	1,170,937	-	-	-	-	-	-	-	1,170,937
21	348.00	Manholes	-	-	-	-	-	-	-	-	-
22		Subtotal Collection and Influent	8,738,028	-	-	-	-	4,940	-	-	8,742,968
23											
42		General - Allocated Common Plant									
43	389.00	Land & Land Rights	4,333	-	-	-	-	(4,200)	-	-	133
44	390.00	Structures & Improvements	91,499	-	-	-	-	1,379	-	-	92,878
45	391.00	*Office Furniture and Equipment*	46,755	-	-	-	-	(2,842)	-	-	43,913
46	391.10	Computer Equipment	69,974	(16,174)	-	-	-	-	-	-	53,800
47	392.00	Transportation Equipment	49,105	-	-	-	-	-	-	-	49,105
48	393.00	Stores Equipment	785	-	-	-	-	-	-	-	785
49	394.00	Tools, Shop, & Garage Equipment	16,457	-	-	-	-	(5,227)	-	-	11,230
50	395.00	Laboratory Equipment	5,284	-	-	-	-	(1,727)	-	-	3,557
51	396.00	Power Operated Equipment	3,288	-	-	-	-	-	-	-	3,288
52	397.00	Communication Equipment	15,776	-	-	-	-	4,038	-	-	19,814
53	398.00	Miscellaneous Equipment	7,570	-	-	-	-	-	-	-	7,570
54		Subtotal General	310,826	(16,174)	-	-	-	(8,579)	-	-	286,073
55											
56		Add:		-	-	-	-	-	-	-	-
57				-	-	-	-	-	-	-	-
58		Less:		-	-	-	-	-	-	-	-
59				-	-	-	-	-	-	-	-
60				-	-	-	-	-	-	-	-
61		Total Plant in Service	$ 23,053,411	$ (16,174)	$ -	$ -	$ -	$ 32	$ -	$ -	$ 23,037,269
62		Less: Accumulated Depreciation	789,221	1,114	-	-	-	-	-	-	788,107
63		Net Plant in Service (L59 - L 60)	$ 22,264,190	$ (15,060)	$ -	$ -	$ -	$ 32	$ -	$ -	$ 22,249,162
64											
65		*LESS:*									
66		Contributions in Aid of Construction (CIAC)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
67		Less: Accumulated Amortization	-	-	-	-	-	-	-	-	-
68		Net CIAC (L25 - L26)	472,196	-	-	-	-	-	-	-	472,196
69		Advances in Aid of Construction (AIAC)	19,045,098	-	-	-	-	-	-	-	19,045,098
70		Customer Deposits	-	-	-	-	-	-	-	-	-
71		Meter Advances	-	-	-	-	-	-	-	-	-
72		*Deferred Income Tax Credits*	-	-	-	-	-	-	-	-	-
73											
74		*ADD:*									
75		Cash Working Capital Allowance	-	-	-	-	-	-	-	-	-
76		Prepayments	-	-	-	-	-	-	-	-	-
77		Supplies Inventory	-	-	-	-	-	-	-	-	-
78		Projected Capital Expenditures	-	-	-	-	-	-	-	-	-
79		Deferred Debits	-	-	-	-	-	-	-	-	-
80		Tolleson Trickling Filter	-	-	-	-	-	-	-	-	-
81		Citizens Acquisition Adjustment	6,134,972	-	-	-	-	-	-	(6,134,972)	-
82		Original Cost Rate Base	$ 8,881,868	$ (15,060)	$ -	$ -	$ -	$ 32	$ -	$ (6,134,972)	$ 2,731,868

ADJ #		References:
1	Plant - not used & useful	Per Staff Engineering Reports
2	Plant - unidentified	Per Staff Engineering Reports
3	Plant - mis-posted	Per Company Response to Staff Data Request BKB 26-3
4	Plant - removed by previous decision	Per Decision No. 60172
5	Post-Test Year Plant	Per Company Response to Staff Data Request DWC 12-2
6	Remove AFUDC Adj. 3/95	Per Company Response to Staff Data Request DWC 6-10 Amended
7	Remove Acquisition Adjustment	Per Carlson Direct Testimony

ARIZONA-AMERICAN WATER COMPANY, INC. - ANTHEM/AGUA FRIA WASTEWATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule AII-1

SURREBUTTAL OPERATING INCOME STATEMENT - TEST YEAR AND STAFF PROPOSED

LINE NO.	DESCRIPTION	[A] COMPANY TEST YEAR AS FILED	[B] STAFF TEST YEAR ADJUSTMENTS	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF PROPOSED CHANGES	[E] STAFF RECOMMENDED
1	*REVENUES:*					
2	Flat Rate Revenues	$ 880,474	$ -	$ 880,474	$ (81,922)	$ 798,552
3	Measured Revenues	-	-	-	-	-
4	Other Wastewater Revenues	986,072	-	986,072	-	986,072
5	Total Operating Revenues	$ 1,866,546	$ -	$ 1,866,546	$ (81,922)	$ 1,784,624
6						
7	*OPERATING EXPENSES:*					
8	Salaries & Wages	$ 317,956	$ (178,644)	$ 139,312	$ -	$ 139,312
9	Purchased Wastewater Treatment	19,925	-	19,925	-	19,925
10	Purchased Power	5,714	55	5,769	-	5,769
11	Fuel for Power Production	-	-	-	-	-
12	Chemicals	-	-	-	-	-
13	Materials and Supplies	(1,053)	-	(1,053)	-	(1,053)
14	Repairs & Maintenance	-	1,053	1,053	-	1,053
15	Office Supplies & Expense	72,565	(28,040)	44,525	-	44,525
16	Outside Services	26,544	(1,390)	25,154	-	25,154
17	Service Company Charges	287,577	(287,577)	-	-	-
18	Water Testing	-	-	-	-	-
19	Rents	8,308	1,331	9,639	-	9,639
20	Transportation Expense	-	-	-	-	-
21	Insurance - General Liability	(3,612)	5,273	1,661	-	1,661
22	Insurance -Health and Life	-	-	-	-	-
23	Regulatory Comm. Exp. - Rate Case	12,319	-	12,319	-	12,319
24	Miscellaneous Operating Expense	241,357	67,299	308,656	-	308,656
25	Depreciation Expense	876,022	(11,428)	864,594	-	864,594
26	Taxes Other Than Income	17,520	(4,073)	13,447	-	13,447
27	Property Taxes	121,472	(19,980)	101,492	-	101,492
28	Income Tax	(87,213)	180,487	93,274	(31,621)	61,653
29	Tolleson Wastewater User Fees	-	-	-	-	-
30						
31	Total Operating Expenses	$ 1,915,401	$ (275,635)	$ 1,639,766	$ (31,621)	$ 1,608,145
32	Operating Income (Loss)	$ (48,855)	$ 275,635	$ 226,780	$ (50,301)	$ 176,479

References:
Column [A]: Company Schedule C-1
Column [B]: Surrebuttal Schedule AII-2
Column [C]: Column [A] + Column [B]
Column [D]: Surrebuttal Schedules DWC-1 and DWC-2
Column [E]: Column [C] + Column [D]

ARIZONA-AMERICAN WATER COMPANY, INC. - ANTHEM/AGUA FRIA WASTEWATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule AII-2

SURREBUTTAL SUMMARY OF OPERATING INCOME STATEMENT ADJUSTMENTS - TEST YEAR

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJ #1	[C] ADJ #2	[D] ADJ #3	[E] ADJ #4	[F] ADJ #5	[G] ADJ #6	[H] ADJ #7	[I] ADJ #8	[J] STAFF ADJUSTED
1	*REVENUES:*										
2	Flat Rate Revenues	$ 880,474	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 880,474
3	Measured Revenues	-	-	-	-	-	-	-	-	-	$ -
4	Other Wastewater Revenues	986,072	-	-	-	-	-	-	-	-	$ 986,072
5	Total Operating Revenues	$ 1,866,546	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,866,546
6											
7	*OPERATING EXPENSES:*										
8	Salaries & Wages	$ 317,956	$ -	$ -	$ (108,156)	$ 139,312	$ (209,800)	$ -	$ -	$ -	$ 139,312
9	Purchased Wastewater Treatment	19,925	-	-	-	-	-	-	-	-	$ 19,925
10	Purchased Power	5,714	55	-	-	-	-	-	-	-	$ 5,769
11	Fuel for Power Production	-	-	-	-	-	-	-	-	-	$ -
12	Chemicals	-	-	-	-	-	-	-	-	-	$ -
13	Materials and Supplies	(1,053)	-	-	-	-	-	-	-	-	$ (1,053)
14	Repairs & Maintenance	-	1,053	-	-	-	-	-	-	-	$ 1,053
15	Office Supplies & Expense	72,565	1,251	-	(29,291)	-	-	-	-	-	$ 44,525
16	Outside Services	26,544	(1,390)	-	-	-	-	-	-	-	$ 25,154
17	Service Company Charges	287,577	-	(287,577)	-	-	-	-	-	-	$ -
18	Water Testing	-	-	-	-	-	-	-	-	-	$ -
19	Rents	8,308	1,331	-	-	-	-	-	-	-	$ 9,639
20	Transportation Expense	-	-	-	-	-	-	-	-	-	$ -
21	Insurance - General Liability	(3,612)	10,204	-	(4,931)	-	-	-	-	-	$ 1,661
22	Insurance -Health and Life	-	-	-	-	-	-	-	-	-	$ -
23	Regulatory Comm. Exp. - Rate Case	12,319	-	-	-	-	-	-	-	-	$ 12,319
24	Miscellaneous Operating Expense	241,357	71,474	-	(4,175)	-	-	-	-	-	$ 308,656
25	Depreciation Expense	876,022	-	-	-	-		(11,428)	-	-	$ 864,594
26	Taxes Other Than Income	17,520	-	-	-	13,447	(17,520)	-	-	-	$ 13,447
27	Property Taxes	121,472	-	-	-	-	-		(19,980)	-	$ 101,492
28	Income Tax	(87,213)	-	-	-	-	-	-	-	180,487	$ 93,274
29	Tolleson Wastewater User Fees	-	-	-	-	-	-	-	-	-	$ -
30											
31	Total Operating Expenses	$ 1,915,401	$ 83,978	$ (287,577)	$ (146,553)	$ 152,759	$ (227,320)	$ (11,428)	$ (19,980)	$ 180,487	$ 1,639,766
32	Operating Income (Loss)	$ (48,855)	$ (83,978)	$ 287,577	$ 146,553	$ (152,759)	$ 227,320	$ 11,428	$ 19,980	$ (180,487)	$ 226,780

ADJ #		References:
1	Citizens' Corporate Costs Allocation	Schedule AII-3
2	Service Company Charges	Schedule AII-4
3	Projected additional expenses	Schedule AII-5
4	Test Year Salaries, Wages & Related Expenses	Schedule AII-6
5	Projected Salaries, Wages & Related Expenses	Schedule AII-7
6	Depreciation Expense	Schedule AII-8
7	Property Taxes	Schedule AII-9
8	Income Taxes	Schedule AII-10

TUBAC WATER

ARIZONA-AMERICAN WATER COMPANY, INC. - TUBAC WATER

Schedule DWC-1

Docket No. WS-01303A-02-0867 et al.

Test Year Ended December 31, 2001

SURREBUTTAL REVENUE REQUIREMENT

LINE NO.	DESCRIPTION	[A] STAFF RCND VALUE	[B] STAFF ORIGINAL COST	[C] STAFF FAIR VALUE
1	Adjusted Rate Base	$ 1,734,478	$ 1,127,661	$ 1,431,070
2	Adjusted Operating Income/(Loss)	$ 20,398	$ 20,398	$ 20,398
3	Current Rate of Return (L2 / L1)	1.18%	1.81%	1.43%
4	Required Rate of Return	4.2%	6.5%	5.1%
5	Required Operating Income (L4 x L1)	$ 72,847	$ 72,847	$ 72,847
6	Operating Income Deficiency/(Excess) (L5 - L2)	$ 52,449	$ 52,449	$ 52,449
7	Gross Revenue Conversion Factor	1.62863	1.62863	1.62863
8	Required Revenue Increase/(Decrease) (L7 x L6)	$ 85,420	$ 85,420	$ 85,420
9	Adjusted Test Year Revenue	$ 254,486	$ 254,486	$ 254,486
10	Proposed Annual Revenue (L8 + L9)	$ 339,906	$ 339,906	$ 339,906
11	Required Increase/Decrease in Revenue (%)	33.57%	33.57%	33.57%
12	Rate of Return on Common Equity (%)	9.0%	9.0%	9.0%

References:

Columns [A], [B], & [C]: Staff Surrebuttal Schedules AII-1, DWC-2, DWC-3, & JMR-S8

ARIZONA-AMERICAN WATER COMPANY, INC. - TUBAC WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-2

SURREBUTTAL GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	[A]	[B]	[C]	[D]
	Calculation of Gross Revenue Conversion Factor:				
1	Billings	100.0000%			
2	Uncollecible Factor (Line 11)	0.0000%			
3	Revenues (L1 - L2)	100.0000%			
4	Combined Federal and State Tax Rate (Line 17)	38.5989%			
5	Subtotal (L3 - L4)	61.4011%			
6	Revenue Conversion Factor (L1 / L5)	1.628635			
	Calculation of Uncollecttible Factor:				
7	Unity	100.0000%			
8	Combined Federal and State Tax Rate (Line 17)	38.5989%			
9	One Minus Combined Income Tax Rate (L7 - L8)	61.4011%			
10	Uncollectible Rate	0.0000%			
11	Uncollectible Factor (L9 x L10)	0.0000%			
	Calculation of Effective Tax Rate:				
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%			
13	Arizona State Income Tax Rate	6.9680%			
14	Federal Taxable Income (L12 - L13)	93.0320%			
15	Applicable Federal Income Tax Rate (Line 40)	34.0000%			
16	Effective Federal Income Tax Rate (L14 x L15)	31.6309%			
17	Combined Federal and State Income Tax Rate (L13 + L16)	38.5989%			
18	Required Operating Income (Schedule DWC-1, Col. [B], Line 5)	$ 72,847			
19	Adjusted Test Year Operating Income (Loss) (Sch. All-1, Col. [C], Line 28)	$ 20,398			
20	Required Increase in Operating Income (L18 - L19)		$ 52,449		
21	Income Taxes on Recommended Revenue (Col. [D], L39)	$ 25,449			
22	Income Taxes on Test Year Revenue (Col. [B], L39)	$ (7,522)			
23	Required Increase in Revenue to Provide for Income Taxes (L21 - L22)		$ 32,971		
24	Recommended Revenue Requirement (Schedule DWC-1, Col. [B], Line 10)	$ 339,906			
25	Uncollectible Rate (Line 10)	0.0000%			
26	Uncollectible Expense on Recommended Revenue (L24 x L25)	$ -			
27	Adjusted Test Year Uncollectible Expense	$ -			
28	Required Increase in Revenue to Provide for Uncollectible Exp. (L26 - L27)		$ -		
29	Total Required Increase in Revenue (L20 + L23 + L28)		$ 85,420		
	Calculation of Income Tax:	Test Year		STAFF Recommended	
30	Revenue (Schedule All-1, Col. [C], Line 5 & Sch. DWC-1, Col. [B], Line 10)	$ 254,486		$ 339,906	
31	Operating Expenses Excluding Income Taxes	$ 241,610	$ -	$ 241,610	
32	Synchronized Interest (L43)	$ 32,364		$ 32,364	
33	Arizona Taxable Income (L30 - L31 - L32)	$ (19,488)		$ 65,932	
34	Arizona State Income Tax Rate	6.9680%		6.9680%	
35	Arizona Income Tax (L33 x L34)		$ (1,358)		$ 4,594
36	Federal Taxable Income (L33 - L35)	$ (18,130)		$ 61,338	
37	Federal Income Tax Rate	34.0000%		34.0000%	
38	Federal Income Tax (L36 x L37)		$ (6,164)		$ 20,855
39	Combined Federal and State Income Tax (L35 + L38)		$ (7,522)		$ 25,449
40	Applicable Federal Income Tax Rate (Col. [D], L38 - Col. [B], L38) / (Col. [C], L36 - Col. [A], L36)				34.0000%
	Calculation of Interest Synchronization:				
41	Rate Base (Schedule DWC-3, Col. [C], Line 17)	$ 1,127,661			
42	Weighted Average Cost of Debt	2.87%			
43	Synchronized Interest (L41 x L42)	$ 32,364			

ARIZONA-AMERICAN WATER COMPANY, INC. - TUBAC WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-3

SURREBUTTAL RATE BASE - ORIGINAL COST

LINE NO.		[A] COMPANY AS FILED	[B] STAFF ADJUSTMENTS	ADJ	[C] STAFF AS ADJUSTED
1	Plant in Service	$ 1,968,840	$ 41,224	A	$ 2,010,064
2	Less: Accumulated Depreciation	569,484	(1,427)	B	568,057
3	Net Plant in Service	$ 1,399,356	$ 42,651		$ 1,442,007
	LESS:				
4	Contributions in Aid of Construction (CIAC)	$ -	$ -		$ -
5	Less: Accumulated Amortization	-	-		-
6	Net CIAC	143,675	-		143,675
7	Advances in Aid of Construction (AIAC)	170,081	-		170,081
8	Customer Deposits	590	-		590
9	Meter Advances	-	-		-
10	Deferred Income Tax Credits	-	-		-
	ADD:				
11	Cash Working Capital	-	-		-
12	Prepayments	-	-		-
13	Supplies Inventory	-	-		-
14	Projected Capital Expenditures	-	-		-
15	Deferred Debits	-	-		-
16	Citizens Acquisition Adjustment	531,184	(531,184)	C	-
17	Original Cost Rate Base	$ 1,616,194	$ (488,533)		$ 1,127,661

Adjustments:
A. Per plant adjustments on Surrebuttal Schedule DWC-4
B. Per accumulated depreciation adjustments on Surrebuttal Schedule DWC-4
C. Per acquisition adjustment on Surrebuttal Schedule DWC-4

References:
Column [A]: Company Schedule B-1
Column [B]: Staff Surrebuttal Schedule DWC-4
Column [C]: Column [A] + Column [B]

ARIZONA-AMERICAN WATER COMPANY, INC. - TUBAC WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule DWC-4

SURREBUTTAL SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS

LINE NO.	ACCT. NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] Plant-not used ADJ #1	[C] Plant-unidentified ADJ #2	[D] Plant Mis-Posted ADJ #3	[E] Plant Prev. Dec. ADJ #4	[F] Post-TY Pl. ADJ #5	[G] AFUDC Adj. ADJ #6	[H] Acquisition Adj ADJ #7	[I] STAFF ADJUSTED
		PLANT IN SERVICE:			Leave Blank	Leave Blank	Leave Blank				
1		Intangible									
2	301.00	Organization	$ 567	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 567
3	302.00	Franchises	2,030	-	-	-	-	-	-	-	2,030
4	303.00	Miscellaneous Intangibles	-	-	-	-	-	-	-	-	-
5		Subtotal Intangible	2,597	-	-	-	-	-	-	-	2,597
6											
7		Source of Supply									
8	310.00	Land & Land Rights	20,414	-	-	-	-	-	-	-	20,414
9	311.00	Structures & Improvements	20,492	-	-	-	-	-	-	-	20,492
10	312.00	Collecting & Impounding Reservoirs	-	-	-	-	-	-	-	-	-
11	313.00	Lakes, Rivers, Other Intakes	-	-	-	-	-	-	-	-	-
12	314.00	Wells and Springs	116,034	(1,624)	-	-	-	-	-	-	114,410
13		Subtotal Source of Supply	156,940	(1,624)	-	-	-	-	-	-	155,316
14											
15		Pumping									
16	320.00	Land & Land Rights	50	-	-	-	-	-	-	-	50
17	321.00	Structures & Improvements	14,608	-	-	-	-	234	-	-	14,842
18	323.00	Other Power Production	-	-	-	-	-	-	-	-	-
19	325.00	Electric Pumping Equipment	244,199	-	-	-	-	26,375	-	-	270,574
20	326.00	Diesel Pumping Equipment	879	-	-	-	-	-	-	-	879
21	328.10	Gas Engine Pumping Equipment	42,994	-	-	-	-	-	-	-	42,994
22		Subtotal Pumping	302,730	-	-	-	-	26,609	-	-	329,339
23											
24		Water Treatment									
25	330.00	Land & Land Rights	50	-	-	-	-	-	-	-	50
26	331.00	Structures & Improvements	-	-	-	-	-	-	-	-	-
27	332.00	Water Treatment Equipment	505	-	-	-	-	-	-	-	505
28		Subtotal Water Treatment	555	-	-	-	-	-	-	-	555
29											
30		Transmission & Distribution									
31	340.00	Land & Land Rights	539	-	-	-	-	-	-	-	539
32	341.00	Structures & Improvements	156	-	-	-	-	-	-	-	156
33	342.00	Distribution Reservoirs & Standpipes	142,420	-	-	-	-	-	-	-	142,420
34	343.00	Transmission & Distribution	921,147	-	-	-	-	18,020	-	-	939,167
35	344.00	Fire Mains	-	-	-	-	-	-	-	-	-
36	345.00	Services	272,942	-	-	-	-	-	-	-	272,942
37	346.00	Meters	87,950	-	-	-	-	-	-	-	87,950
38	348.00	Hydrants	24,189	-	-	-	-	-	-	-	24,189
39	349.00	Other Transmission & Distribution	-	-	-	-	-	-	-	-	-
40		Subtotal Transmission & Distribu.	1,449,343	-	-	-	-	18,020	-	-	1,467,363
41											
42		General - Allocated Common Plant									
43	389.00	Land & Land Rights	26	-	-	-	-	-	-	-	26
44	390.00	Structures & Improvements	17,767	-	-	-	-	-	-	-	17,767
45	391.00	*Office Furniture and Equipment*	9,093	-	-	-	-	(563)	-	-	8,530
46	391.10	Computer Equipment	13,194	(3,138)	-	-	-	-	-	-	10,056
47	392.00	Transportation Equipment	9,535	-	-	-	-	-	-	-	9,535
48	393.00	Stores Equipment	152	-	-	-	-	-	-	-	152
49	394.00	Tools, Shop, & Garage Equipment	2,181	-	-	-	-	-	-	-	2,181
50	395.00	Laboratory Equipment	691	-	-	-	-	-	-	-	691
51	396.00	Power Operated Equipment	638	-	-	-	-	-	-	-	638
52	397.00	Communication Equipment	3,763	-	-	-	-	85	-	-	3,848
53	398.00	Miscellaneous Equipment	1,470	-	-	-	-	-	-	-	1,470
54		Subtotal General	58,510	(3,138)	-	-	-	(478)	-	-	54,894
55											
56		Add:									-
57											-
58		Less:		-	-	-	-	-	-	-	-
59		AFUDC Adjustment 3/95**	(1,835)	-	-	-	-	-	1,835	-	-
60				-	-	-	-	-	-	-	-
61		Total Plant in Service	$ 1,968,840	$ (4,762)	$ -	$ -	$ -	$ 44,151	$ 1,835	$ -	$ 2,010,064
62		Less: Accumulated Depreciation	569,484	1,840	-	-	-	-	413	-	568,057
63		Net Plant in Service (L59 - L 60)	$ 1,399,356	$ (2,922)	$ -	$ -	$ -	$ 44,151	$ 1,422	$ -	$ 1,442,007
64											
65		*LESS:*									
66		Contributions in Aid of Construction (CIAC)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
67		Less: Accumulated Amortization	-	-	-	-	-	-	-	-	-
68		Net CIAC (L25 - L26)	143,675	-	-	-	-	-	-	-	143,675
69		Advances in Aid of Construction (AIAC)	170,081	-	-	-	-	-	-	-	170,081
70		Customer Deposits	590	-	-	-	-	-	-	-	590
71		Meter Advances	-	-	-	-	-	-	-	-	-
72		Deferred Income Tax Credits	-	-	-	-	-	-	-	-	-
73											
74		*ADD:*									
75		Cash Working Capital Allowance	-	-	-	-	-	-	-	-	-
76		Prepayments	-	-	-	-	-	-	-	-	-
77		Supplies Inventory	-	-	-	-	-	-	-	-	-
78		Projected Capital Expenditures	-	-	-	-	-	-	-	-	-
79		Deferred Debits	-	-	-	-	-	-	-	-	-
80		Citizens Acquisition Adjustment	531,184	-	-	-	-	-	-	(531,184)	-
81		Original Cost Rate Base	$ 1,616,194	$ (2,922)	$ -	$ -	$ -	$ 44,151	$ 1,422	$ (531,184)	$ 1,127,661

ADJ #		References:
1	Plant - not used & useful	Per Staff Engineering Reports.
2	Plant - unidentified	Per Staff Engineering Reports.
3	Plant - *mis-posted*	Per Company Response to Staff Data Request BKB 26-3.
4	Plant - removed by previous decision	Per Decision No. 60172.
5	Post-Test Year Plant	Per Company Response to Staff Data Request DWC 12-2
6	Remove AFUDC Adj. 3/95	Per Company Response to Staff Data Request DWC 6-10 Amended
7	Remove Acquisition Adjustment	Per Carlson Direct Testimony

ARIZONA-AMERICAN WATER COMPANY, INC. - TUBAC WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

Schedule AII-1

SURREBUTTAL OPERATING INCOME STATEMENT - TEST YEAR AND STAFF PROPOSED

LINE NO.	DESCRIPTION	[A] COMPANY TEST YEAR AS FILED	[B] STAFF TEST YEAR ADJUSTMENTS	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF PROPOSED CHANGES	[E] STAFF RECOMMENDED
1	*REVENUES:*					
2	Metered Water Sales	$ 251,795	$ -	$ 251,795	$ 85,420	$ 337,215
3	Water Sales - Unmetered	-	-	-	-	-
4	Other Operating Revenue	2,691	-	2,691	-	2,691
5	Total Operating Revenues	$ 254,486	$ -	$ 254,486	$ 85,420	$ 339,906
6						
7	*OPERATING EXPENSES:*					
8	Salaries & Wages	$ 77,690	$ (17,461)	$ 60,229	$ -	$ 60,229
9	Purchased Water	-	-	-	-	-
10	Purchased Pumping Power	20,767	4	20,771	-	20,771
11	Chemicals	16	-	16	-	16
12	Repairs & Maintenance	18,029	-	18,029	-	18,029
13	Office Supplies & Expense	19,965	(10,820)	9,145	-	9,145
14	Outside Services	10,516	2,243	12,759	-	12,759
15	Service Company Charges	38,653	(38,653)	-	-	-
16	Water Testing	1,420	-	1,420	-	1,420
17	Rents	3,454	-	3,454	-	3,454
18	Transportation Expense	-	-	-	-	-
19	Insurance - General Liability	3,428	(1,285)	2,143	-	2,143
20	Insurance - Health and Life	-	-	-	-	-
21	Regulatory Comm. Exp. - Rate Case	1,680	-	1,680	-	1,680
22	Miscellaneous Operating Expense	7,022	22,707	29,729	-	29,729
23	Depreciation Expense	37,208	(1,837)	35,371	-	35,371
24	Taxes Other Than Income	4,809	21,474	26,283	-	26,283
25	Property Taxes	23,752	(3,171)	20,581	-	20,581
26	Income Tax	(28,505)	20,983	(7,522)	32,971	25,449
27						
28	Total Operating Expenses	$ 239,904	$ (5,816)	$ 234,088	$ 32,971	$ 267,059
29	Operating Income (Loss)	$ 14,582	$ 5,816	$ 20,398	$ 52,449	$ 72,847

References:
Column [A]: Company Schedule C-1
Column [B]: Surrebuttal Schedule AII-2
Column [C]: Column [A] + Column [B]
Column [D]: Surrebuttal Schedules DWC-1 and DWC-2
Column [E]: Column [C] + Column [D]

ARIZONA-AMERICAN WATER COMPANY, INC. - TUBAC WATER
Docket No. WS-01303A-02-0867 et al.
Test Year Ended December 31, 2001

SURREBUTTAL SUMMARY OF OPERATING INCOME STATEMENT ADJUSTMENTS - TEST YEAR

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJ #1	[C] ADJ #2	[D] ADJ #3	[E] ADJ #4	[F] ADJ #5	[G] ADJ #6	[H] ADJ #7	[I] ADJ #8	[J] STAFF ADJUSTED
1											
2	*REVENUES:*										
3	Metered Water Sales	$ 251,795	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 251,795
4	Water Sales - Unmetered	-	-	-	-	-	-	-	-	-	-
5	Other Operating Revenue	2,691	-	-	-	-	-	-	-	-	2,691.0
6	Total Operating Revenues	$ 254,486	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 254,486
7											
8	*OPERATING EXPENSES:*										
9	Salaries & Wages	$ 77,690	$ -		$ (18,026)	$ 60,229	$ (59,664)	$ -	$ -	$ -	$ 60,229
10	Purchased Water	-	-	-	-	-	-	-	-	-	$ -
11	Purchased Pumping Power	20,767	4	-	-	-	-	-	-	-	$ 20,771
12	Chemicals	16	-	-	-	-	-	-	-	-	$ 16
13	Repairs & Maintenance	18,029	-	-	-	-	-	-	-	-	$ 18,029
14	Office Supplies & Expense	19,965	627	-	(11,447)	-	-	-	-	-	$ 9,145
15	Outside Services	10,516	2,243	-	-	-	-	-	-	-	$ 12,759
16	Service Company Charges	38,653	-	(38,653)	-	-	-	-	-	-	$ -
17	Water Testing	1,420	-	-	-	-	-	-	-	-	$ 1,420
18	Rents	3,454	-	-	-	-	-	-	-	-	$ 3,454
19	Transportation Expense	-	-	-	-	-	-	-	-	-	$ -
20	Insurance - General Liability	3,428	2,127	-	(3,412)	-	-	-	-	-	$ 2,143
21	Insurance -Health and Life	-	-	-	-	-	-	-	-	-	$ -
22	Regulatory Comm. Exp. - Rate Case	1,680	-	-	-	-	-	-	-	-	$ 1,680
23	Miscellaneous Operating Expense	7,022	22,928	-	(221)	-	-	-	-	-	$ 29,729
24	Depreciation Expense	37,208	-	-	-	-		(1,837)	-	-	$ 35,371
25	Taxes Other Than Income	4,809	-		-	26,283	(4,809)	-	-	-	$ 26,283
26	Property Taxes	23,752	-	-	-	-	-		(3,171)	-	$ 20,581
27	Income Tax	(28,505)	-	-	-	-	-	-		20,983	$ (7,522)
28											
29	Total Operating Expenses	$ 239,904	$ 27,929	$ (38,653)	$ (33,106)	$ 86,512	$ (64,473)	$ (1,837)	$ (3,171)	$ 20,983	$ 234,088
30	Operating Income (Loss)	$ 14,582	$ (27,929)	$ 38,653	$ 33,106	$ (86,512)	$ 64,473	$ 1,837	$ 3,171	$ (20,983)	$ 20,398

ADJ #		References:
1	Citizens, Corporate Costs Allocation	Schedule AII-3
2	Service Company Charges	Schedule AII-4
3	Projected additional expenses	Schedule AII-5
4	Test Year Salaries, Wages & Related Expenses	Schedule AII-6
5	Projected Salaries, Wages & Related Expenses	Schedule AII-7
6	Depreciation Expense	Schedule AII-8
7	Property Taxes	Schedule AII-9
8	Income Taxes	Schedule AII-10